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FLORULA CESTRICA:

AN ESSAY TOWARDS

A CATALOGUE OF THE PHÆNOGAMOUS PLANTS,

NATIVE AND NATURALIZED,

GROWING IN THE VICINITY OF THE

BOROUGH OF WEST-CHESTER,

IN CHESTER COUNTY, PENNSYLVANIA:

WITH BRIEF NOTICES OF THEIR PROPERTIES, AND USES, IN MEDICINE, RURAL ECONOMY, AND THE ARTS.

TO WHICH IS SUBJOINED

An Appendix of the Useful Cultivated Plants

OF THE SAME DISTRICT.

BY WILLIAM DARLINGTON, M. D.

Ore trahit quodcunque potest, atque addit acervo. HOR.

WEST-CHESTER, PENN.

PRINTED FOR THE AUTHOR, BY SIMEON SIEGFRIED.

1826.

ALSO INSCRIBED,

AS A TRIBUTE OF AFFECTION,

TO THE MEMORY OF MY EARLY AND ESTIMABLE FRIEND,

WILLIAM BALDWIN, M. D.

LATE SURGEON IN THE NAVY OF THE UNITED STATES:

A MAN IN WHOM THE LOVE OF SCIENCE

WAS EQUALLED ONLY BY HIS BENEVOLENCE TOWARDS HIS FELLOW CREATURES;

WHO, TO A MOST AMIABLE SIMPLICITY OF CHARACTER,

UNITED A RARE SAGACITY, AND AN INDEFATIGABLE ACTIVITY,

IN THE PROSECUTION OF BOTANICAL KNOWLEDGE.

HIS ARDOR IN THE PURSUIT,

LED HIM TO UNDERTAKE AN EXPEDITION TO WHICH HIS DECLINING HEALTH

WAS TOTALLY INADEQUATE:

AND, ON THE BANKS OF THE MISSOURI,

FAR FROM THE BOSOM OF HIS FAMILY,

AND THE CIRCLE OF HIS ANXIOUS FRIENDS,

HE FOUND AN UNTIMELY GRAVE.

——————— "Manibus date Lilia plenis:
Purpureos spargam flores, animamque *Amici*
His saltem accumulem donis, et fungar inani
Munere."

W. D.

PREFACE.

THE following Catalogue was undertaken a number of years ago—at a time when the works which professed to treat of the plants of this country were few in number, and those few far from being complete.

Having experienced much difficulty from the want of satisfactory aids, when I began to investigate our native vegetables, it very early occurred to me, that if the lovers of Botany throughout the United States were to prepare and publish *local Floras*, or Catalogues of the plants of their respective neighborhoods,—carefully describing such as were little known, or had been entirely overlooked,—it would be the readiest mode of obtaining the *materials* for that great desideratum, a complete AMERICAN FLORA. It was under this impression that I began to collect the plants of this vicinity—with the intention of publishing a list of them, in a form that should exhibit the views which I entertained respecting such local contributions.

In pursuance of this plan, I was actually preparing the present catalogue for the press, when the appearance of Mr. Pursh's valuable Flora induced me to pause, and revise my humble performance. The subsequent publication of Mr. Nuttall's excellent work on the North American Genera, and, more especially, of Dr. Barton's Flora Philadelphica,—which comprised the greater portion of the plants of this district,—seemed to supersede the utility of my project; and I relinquished, for a time, all idea of printing. My attention, however, to the subject of a local Flora, was not remitted; but, on the contrary, availing myself of the assistance afforded by those recent works, (as well as by the admirable *Sketch*, of Mr. Elliott,) I prosecuted my investigations with renewed diligence. I had, moreover, the pleasure to communicate a taste for botanical studies to several intelligent gentlemen of the vicinity, who materially aided me in my researches,—and who have since embarked, with a laudable zeal, in a more extensive exploration of the Natural History of this region. At the instance of those gentlemen—and with a hope that it might be found somewhat useful, as a sort of *Index* to the Botany of the district,—and perhaps be instrumental in inciting the youth of the County to prosecute such researches—I finally resolved to print a few copies. I was the more readily induced to do so, from having on my hands the accompanying engravings, which I had procured for the work several years before.

Such is, briefly, the history of the present catalogue. It has no pretensions to any thing more than a faithful endeavor to present a view of the character and distribution of the phænogamous plants of this vicinity. Nevertheless, local and circumscribed as it is, and imperfect as I am sensible it must be,—I am willing to flatter myself that when its original design is considered, the cultivators of Botany, in the United States, will be disposed to regard it with indulgent liberality. To them it is submitted as a mere *coup d'essai*,—the first offering of an ardent admirer of the science, who would be happy to contribute his mite, in any way, towards promoting a more intimate knowledge of American Plants.

The *plan* of the work is that which I had originally adopted; except that I finally determined to annex to the *authority*, cited for each genus and species, a very brief *description*, drawn from the best sources within my reach,—and carefully compared, as far as practicable, with specimens before me. In this way I thought I could render the catalogue more satisfactory, by giving the reader some clue to the characters of the plants enumerated—and perhaps enable him to comprehend more distinctly what it was I intended, where I have been mistaken. I have given a number of the *Synonyms* of late writers on American Plants, with a view to the same object. I regret exceedingly that I did not possess the first volume of Dr. Torrey's excellent Flora, until it was too late to avail myself of the instruction it affords. In my estimation, it gives the most clear and satisfactory account of the plants of this region, that has yet appeared; and had I been so fortunate as to have obtained it in time, I should certainly have adopted, to a very great extent, both its arrangement and nomenclature. Taken in conjunction with Mr. Elliott's sketch of the Botany of the South, it will, when completed, leave but little to desire, as to the descriptions of the known plants of the United States.

I have taken some pains to collect the various *Common Names* by which the plants are designated, in this part of the country; for it seems to me that the very uncertainty which attends them, renders it important that they should be carefully enumerated. The same plants are known by different names, in different neighborhoods,—and the same names are often applied to very different plants. Indeed there is scarcely any thing more vague and confused, than the vulgar botanical nomenclature,—a circumstance which sometimes leads to serious mistakes, in relation to plants possessed of active properties: and I apprehend there is no mode so likely to obviate the difficulty—if not to correct the evil—as a complete list of those local appellations.

The *time of flowering*, given in this catalogue, is intended to designate the period when the flowers begin to open. From the observations of twenty years, I find the range in the date of their appearance,—especially in our spring flowers,—is about ten days: and I have accordingly noted the *beginning*, *middle*, and *latter end* of each month, with reference to such range. Under the impression that it would be interesting, and indeed of practical utility to the cultivators of plants, I have annexed to the time of flowering, the time at which the *fruit is matured*, so far as I have had occasion to observe the fact: leaving a blank where the date has escaped notice, to be filled by future observations.

In giving the *habitat*, my object was first to mention the general character of the soil, or situation; and then to refer to some particular locality, in which I had found the plant—unless it were so common as to render such reference superfluous. To these I have subjoined the usual size, or height of the plant, with us; and also the prevailing color of its flowers.

As the knowledge of natural objects is chiefly desirable on account of their *properties*,—whether useful or pernicious,—I have briefly noticed such of our plants as are endowed with either character;—more particularly those which are known, or *reputed*, to possess valuable properties, in medicine, rural economy, and the arts.

To the catalogue of our native and naturalized plants, I have added an *Appendix*, containing a list of those which are *cultivated*, in this vicinity, for the sake of some useful property. My object in this was, in the first place, to afford an idea of the number and character of those plants which engage the attention of our practical farmers, and gardeners, at the present day, as articles of utility. It seemed to me, that by throwing them into a distinct groupe, it would exhibit a somewhat interesting view of the actual extent of our vegetable culture, as well as indicate the plants which are now deemed most valuable, or best adapted to our soil and climate. In the next place, I thought it might be gratifying to some of our young Agriculturists, who are attending to Natural Science, to have the objects of their annual care and labor presented to them in a botanical point of view; and that it might possibly induce them to acquire such additional knowledge of those objects as would lead to beneficial results, in practice. I am particularly desirous that our young Farmers should blend a portion of scientific research and observation with the labors of the field. So far from its being idle, or unprofitable, I sincerely believe it would promote their most substantial interests;—whilst I am very sure it would add to their stock of rational pleasures, and elevate the character of their profession.

Having said thus much in relation to the origin and general design of this Catalogue, it remains to add a few words touching a circumstance which will probably subject me to the charge of temerity, if not of presumption. I allude to the change that I have ventured to suggest, in the *name* and *position* of the Linnæan Class, *Icosandria*. I am by no means friendly to idle or wanton innovations in scientific arrangements, or language: nor would I have risked the imputation, in this instance, if I had been engaged in any thing of more consequence than a mere local Catalogue. But while it still remains in some degree uncertain how the Classes of the Sexual System will be finally settled, I thought there could be no great harm in suggesting, in such a performance as this, an alteration which seemed to me to be an improvement.

The Class Icosandria is unquestionably a highly *natural* one—of which the name, given by Linnæus, conveys no accurate idea: and yet his attention to the *name*, evidently led him to exclude from it some plants which, in my opinion, ought to belong to it. It is called *Icosandria*, because the greater number of the Genera belonging to it have *about twenty stamina*. But this is by no means the *essential character* of the Class; for Linnæus himself says, "Pro charactere tamen *non assumendus est* NUMERUS, cum omnes polyandri *staminibus parieti interno calycis insertis* (non vero receptaculo) *huc amandandi sint*." It is *the insertion of the stamina upon the calyx* which marks the true character of the Class: and I humbly conceive that *all hermaphrodite plants thus characterized* ought to be referred to the same Class, without regard to the *number* of the stamina. Hence I can perceive no good reason why the genus *Ribes*, which has but *five* stamina, may not be introduced into this natural assemblage, as well as *Eugenia*, *Rosa*, and some others, in which the stamina are very numerous. Neither of those Genera have any pretension to the *name* Icosandria, strictly speaking: yet they certainly all agree in the essential characteristic of the

Class. The same remark may be made in relation to some other genera, which the later Botanists have already transferred thither,—although they have fewer than twenty stamina,—such as *Agrimonia*, *Cuphea*, &c. and it might probably be extended with propriety still further; so as to comprehend *Melastoma*, and indeed every other genus in which the stamina (and the petals, when present,) are inserted regularly upon the inner edge, or rim, of a concave monophyllous perianth. It was from this view of the subject, that I was induced to propose the name of CALYCANDRIA, as being more appropriate, and correct. This term is expressive of the true character of the Class; and is sustained by analogy in the Linnæan name, *Gynandria*.

Every Botanist will at once perceive the nature of the suggestion,—and will form his own opinion whether or not it is worthy to be entertained, or considered. Very probably the old name, having been imposed by the great founder of the Sexual System, and consecrated by long usage, will continue to be preferred—although, like the name *October* for the *Tenth* month, it does not express what it means. Certain it is, however, that a veneration for high authority has not deterred the Moderns from *abolishing whole Linnæan Classes*, whatever effect it may have in preventing the *modification of Linnæan Names!* But let the decision, in this instance, be what it may, it is deemed unnecessary to enlarge upon a proposition so obvious in its character. I shall content myself with having respectfully submitted the idea; and will dismiss the subject without further remark,—except merely to observe, that I have placed this Class *after Polyandria*, for the sake of keeping in *an uninterrupted series* all the Classes which are founded upon the *number* of the stamina.

I cannot in justice conclude without acknowledging the obligations I am under to a few botanical friends for their kind and liberal aid, during the progress of this Essay. To the Rev. MR. SCHWEINITZ, in particular, I am indebted for information, which was of the greatest advantage to me in determining many of our plants. That gentleman was so obliging as to examine the greater portion of my doubtful specimens; and to favor me with his opinions,—and many interesting remarks,—of which I have been careful to avail myself.

My lamented friend, the late DOCTOR WILLIAM BALDWIN, (who was born and educated in this vicinity,) afforded me much important assistance during the earlier period of my researches; and indicated the localities of a number of our rarer plants. Had his valuable life been longer spared, my catalogue would doubtless have been less imperfect—not to say more worthy of the notice of the cultivators of American Botany. To him I submitted my suggestion, relative to changing the name, and location, of the Linnæan Class, Icosandria; and it was his decided approbation of the proposition, which emboldened me to present it to the votaries of the Science.

To my friends ZACCHEUS COLLINS, Esquire, and Mr. D. STEINHAUER, of Philadelphia, I am also under many obligations, for their kindness and attention, in examining specimens, and otherwise aiding me in my investigations.

After this catalogue went to press, I had the good fortune to commence an occasional correspondence with that distinguished Naturalist, PROFESSOR TORREY, of West Point; which correspondence has, to me, been a source of instruction and pleasure—alloyed only by a regret that I had not earlier enjoyed that advantage. For the information, and specimens, received from him, I beg leave here to offer my sincere and grateful acknowledgments.

*** It may be satisfactory to those at a distance, who may honor this catalogue with a glance at its contents, to state, that the *Borough of West-Chester*,—in and around which the enumerated plants were collected,—is the County Town, and Seat of Justice of Chester county, Pennsylvania. It is situated about two miles East of the Eastern branch of Brandywine Creek,—and about three miles, North Easterly, from the junction of the two main branches of that stream; five miles South of the great Limestone Valley, which extends from the Schuylkill to the Susquehanna; sixteen miles North Westerly from Wilmington, Delaware; and twenty three miles West of the City of Philadelphia. The ground, on which the Village stands, is high,—being, in fact, the dividing ridge between the waters of the Brandywine, and Chester Creek; and the face of the adjacent country is somewhat hilly, and irregular. The soil is mostly a stiff loam—sometimes quite clayey—and generally in a highly improved state of culture. About two miles North of West-Chester, there is an elevated slaty district, or stripe of land, from two to three miles wide, which runs South of, and parallel with, the Great Valley,—extending from N. E. to S. W.—known by the name of "*the Barrens.*" Immediately South of the Slaty Barrens, is a vein of Serpentine Rock, which occasionally rises in rugged, broken spurs, that are extremely sterile; and upon which are to be found some plants that seem to be peculiar to that kind of soil—such as the *Talinum*, *Scleria*, *Atheropogon*, *Arenaria stricta*, &c.—One of the largest of those Serpentine banks, or ridges, called "*the Barren Ridge*," occurs about a mile N. E. of the Borough.

ABBREVIATIONS AND REFERENCES.

Bart. Fl. Phil. or *Fl. Phil.*—Barton's Flora Philadelphica.
Big. or *Big. Fl. Bost.*—Bigelow's Florula Bostoniensis.
Boerh.—Hermanni Boerhaave, Historia Plantarum in Horto Academico Lugduni-Batavorum.
Cal.—Calyx. *Caps.* Capsule, or Capsules. *Cor.* Corolla.
Cyclop. or *Sm. Cycl.*—Smith, in Rees's Cyclopædia.
De Theis.—Glossaire de Botanique.
Eat. or *Eaton*—Manual of Botany.
Ell.—Elliott's Sketch of the Botany of South Carolina and Georgia.
Fil. or *Filam.*—Filaments. *Fl.*—Floret; puts forth flowers. *Fr. mat.*—Fructus maturus; fruit mature.
Gen. Pl.—Linnæi Genera Plantarum, curante Schrebero.
Hab.—Habitat, or Habitatio: the natural or usual place of growth.
Hort. Kew.—Aiton's Hortus Kewensis.
Juss. Gen. Pl.—Antonii Laurentii De Jussieu Genera Plantarum.
Marsh. or *Mll.*—Marshall's Arbustum Americanum.
Mx.—Michaux's Flora Boreali-Americana.
Mx. Arb.—Michaux's Arbres Forestiers de L'Amerique Septentrionale.
Muhl.—Muhlenberg's Catalogue; and Graminum Descriptio.
Nect.—Nectary, or Nectaries.
Nutt. Gen. or *Nutt.*—Nuttall's Genera of North American Plants.
Persoon.—Persoon's Synopsis Plantarum.
Ph.—Pursh's Flora Americæ Septentrionalis.
Recept.—Receptacle.
Schœpf.—Schœpf's Materia Medica Americana.
Schw.—Schweinitz; Monographs of Viola and Carex.
Sm. or *Sm. Fl. Brit.*—Smith's Flora Britannica.
Stam.—Stamen, or Stamens. *Stig.* Stigma, or Stigmas.
Synon.—Synonyms; other names for the same plants.
Tor.—Torrey's Flora of the Northern and Middle States.
Wg.—Withering's Arrangement of British Plants.
Willd.—Willdenow's Species Plantarum.

☞ With a view to gratify a curiosity, in others, which I always felt myself, I have attempted to give the *Etymology*, or derivation of the *Generic Names*, so far as I could ascertain the same. My authorities are chiefly *De Theis*, *Boerhaave*, and *Rees's Cyclopædia*. Not having Greek types at hand, I have used the *Italic Y* to represent the Greek *Upsilon*, in all cases where it is rendered by the letter *Y*, in the formation of the derivative name.

I have also, at the particular request of some of the young cultivators of Botany in this vicinity, annexed a GLOSSARY, containing a brief explanation of the principal descriptive terms used in the Catalogue.

Glossary

OF THE PRINCIPAL BOTANICAL TERMS USED IN THE DESCRIPTIONS, IN THIS CATALOGUE.

Abortive. Not perfecting the fruit.
Acerose Leaf. Needle-form; or linear, acute, and ever-green; as in Juniper, &c.
Acine. The little globule of a compound berry.
Aculeate. Having prickles which are affixed to the bark only, and not to the wood.
Acuminate. Ending in a suddenly tapering point.
Acute. Terminating in an angle; not rounded.
Adnate. Adhering, fixed or growing to.
Aggregate. Collected on the same receptacle: or embraced by a common calyx.
Alate. Winged; having a membranous border.
Ament Flower-bearing scales arranged on a slender receptacle.
Amplexicaul. Embracing or clasping the stem.
Ancipital. Somewhat flatted, with two opposite edges.
Androgynous. Having male and female flowers distinct, but on the same plant, or spike.
Anther. The knob, or capsule, containing the pollen: usually supported on a filament.
Apetalous. Not having a corolla, or petals.
Apex. The tip, summit, or end.
Appressed. Pressed to, or squeezed close.
Approximate. Growing near each other.
Arillate. Applied to seeds which have a loose outer coat, (*or arillus,*) that falls off spontaneously.
Aristate. Awned; having awns.
Armed. Having thorns, or prickles.
Ascending. Rising gradually between a horizontal and vertical position.
Assurgent. Rising in a curve from a declined base.
Attenuate. Tapering gradually till it becomes slender.
Auriculate. Having rounded appendages at the base, like ears.
Awn. A slender process, issuing from the chaff, in grasses.
Axil. The angle formed by a branch with the stem, or by a leaf with the branch.
Axillary. Proceeding from, or growing in, the axil.
Banner. The upper petal in a papilionaceous flower.
Barb. A straight process armed with one or more teeth, pointing backwards.
Beaked. Terminating by a process in the form of a bird's bill.
Beard. Parrallel hairs.
Berry. A pulpy pericarp without valves, containing naked seeds.
Bibracteate. Having two bractes.
Bidentate. Having two teeth.
Bifid. Two cleft, or split into two segments.
Bifurcate. Forked: dividing by pairs.
Bilabiate. Having two lips.
Bilocular. Having two cells.
Bipinnate. The common petiole having pinnate leaves on each side of it.
Bipinnatifid. The common petiole having pinnatifid leaves on each side of it.
Birostrate. Having two beaks.
Biternate. When the petiole is ternate, and each division bearing three leaflets.
Border of a Corolla. The spreading brim of a Corolla of more than one petal.
Brachiate. Branches nearly horizontal, opposite, and decussate.
Bracte. Floral leaf. A leaf near or among the flowers, and different from the other leaves.
Bracteate. Furnished with bractes.
Branchlet. A little branch: a sub-division of a branch.
Bristles. Very stiff hairs; simple or hooked.
Bulb. The winter receptacle of certain plants, placed for the most part immediately on the root. It is either solid, scaly, coated, or jointed.
Bulb-bearing. Producing bulbs above ground.
Caducous. Falling off quickly.
Calcarate. Spurred: having a process resembling a horn, or cock's spur.
Calceiform. Shaped like a shoe, or slipper.
Calycandrous. Bearing the stamens on the calyx.
Calyculate. Having a calyx. A *calyculate calyx*, is a calyx having a calycle, or little additional calyx at its base.
Calyx. The cup or outer covering of a flower; mostly green, or in botanical language, not colored.
Campanulate. In the form of a bell.
Canaliculate. Channelled, or grooved.
Canescent. Hoary; covered with a white pubescence.
Capillaceous, and *Capillary.* Long and fine, like a hair.
Capitate. Head-form: growing in a head.
Capsule. A dry, membranous, hollow seedvessel, mostly opening by valves, in some determinate manner.
Carinate. Keeled: having a ridge resembling the keel of a boat.
Carnose. Fleshy: more firm than pulp.
Cartilaginous. Hard and somewhat flexible: like gristle.
Cauda. A tail. *Caudate.* Having a tail.
Cauline Belonging to, or growing on the main stem.
Cernuous. Drooping, or nodding.
Cespitose. Many stems growing from the same root; forming a turf, or tussock.
Chaff. A thin, dry membrane: mostly applied to the glumes, or seed covers of the grasses.
Chaffy. Bearing chaff; or resembling chaff.
Channelled. Having longitudinal grooves.
Ciliate. Fringed; edged with parallel hairs, resembling eye-lashes.
Cirrhose. Terminating in a tendril.
Circumscissed. Cut round; or opening horizontally, like a snuff-box.
Class. The highest or primary division of plants, or other natural objects, in a system
Clavate. Club-shaped; growing larger towards the end.
Claw. The lower narrow part of a petal, in a polypetalous corolla, by which it is fixed to the receptacle, or calyx.

Cleft. Split down in a straight line towards the base; but not so deep as when it is termed *parted.*
Clypeate. Resembling a shield, or target.
Coadunate. Joined together, or united at base.
Coated. Consisting of concentric layers, or skins,—as the bulb of an onion.
Coætaneous. Appearing at the same time with the leaves.
Cochleate. Coiled spirally, like a snail-shell.
Colored. Any other color than green.
Columella. The central pillar in a capsule, to which the seeds are affixed.
Common. Including or sustaining several parts, similar among themselves.
Compact. Condensed, or pressed together.
Complete Flower. Having both calyx and corolla.
Compound Flower. Consisting of several synegenesious florets, in a common calyx, and seated on a common receptacle.
Compound Leaf. When several leaflets grow on a common petiole.
Compound Umbel. When each peduncle of an umbel bears an umbellule, or partial umbel.
Compressed. Flattened, as if squeezed or pressed.
Conduplicate Leaf. Shut or folded together like the leaves of a book.
Cone. An ament with woody scales; as in the pine: Also used for the fruit of the *hop*, &c. and *Conic*, or *Conoid*, indicates the figure of a cone.
Conglomerate. Clustered, or heaped together.
Connate. Growing together at base.
Connivent. Meeting or bending towards each other.
Contorted. Twisted: or obliquely overlapping.
Contrary. Applied to partitions, in a pericarp, which are not parrallel with the valves.
Convolute. Rolled into a cylindric form.
Coralloid. Resembling coral, in figure.
Cordate. Shaped like a heart. It is also compounded with other words to designate forms—as
Cordate-oblong. Oblong ,with a cordate base.
Cordate-ovate. Ovate, with the base somewhat cordate.
Coriaceous. Leathery, or parchment-like.
Corolla. The delicate covering, or portion of the flower, standing next to the stamens, and mostly colored: often called the Blossom.
Corollule. A little corolla; in a compound flower.
Corymb. A mode of flowering resembling an Umbel, nearly level at top, but with the peduncles of different lengths; as yarrow, &c.
Corymbose. After the manner of a corymb.
Cowled. The edges meeting below, and expanding above: like a hood thrown back.
Creeping. Running along the ground and putting forth small roots.
Crenate. Notched on the edge, with the segments circular, and not inclining towards either extremity.
Crenulate. Very finely crenate.
Crested. Having an appendage like a crest,or tuft.
Crisp. Curled; or wavy at the edges.
Crowded. Thick-set: standing in close order.
Crown. The pappus, or other appendage, on the top of some seeds.
Cucullate. Cowled: which see.
Culm. The hollow jointed stem of the grasses, and grain-bearing plants.
Culmiferous. Having a jointed stem, or culm.
Cuneate, and*Cuneiform.* Wedge shaped; narrow downwards, or towards the base.
Cuspidate. Having the end sharp like the point of a spear—or, terminating in a bristly point.
Cyathiform. Cup-shaped; widening upwards.
Cyme. A mode of flowering where the peduncles rise from the same centre, but the subdivisons of them are irregular.
Cymose. Having the flowers in cymes.
Decandrous. Having ten stamens.
Deciduous. Falling off at the usual time for such parts to fall: as leaves, &c.
Declinate. Curved downwards, archwise.
Decompound Leaf. When the petiole is divided, and each division bearing a compound leaf.
Decumbent. When the base is erect, and the remainder procumbent.
Decurrent Leaf. When its two edges are continued down the stem, on which it is inserted.
Decussate. Growing in pairs, which alternately cross each other.
Deflected. Bent down archwise.
Dehiscent. Opening; the natural opening of capsules.
Deltoid. Triangular; like the Greek Delta.
Dense. Close, or compact.
Dentate. Having projecting teeth, of its own substance.
Denticulate. Having very small teeth.
Depressed. Flattened vertically.
Diadelphous. Having the filaments united in two parcels, with a papilionaceous corolla.
Diandrous. Having two stamens.
Dichotomous. Continually and regularly dividing by pairs.
Didynamous. Having two short, and two long, stamens.
Diffuse. Spreading in a loose open manner.
Digitate Leaf. When a simple petiole connects several distinct leaflets at the end of it.
Digynous. Having two styles.
Dioicous. The male and female flowers on distinct plants.
Discoid Flower. Having a disk without rays.
Disk. The whole surface of a leaf: or the face, or central part, of a compound flower.
Dissepiment. The partition between the cells of seed vessels.
Distichous. Two-rowed; flowers or leaves on opposite sides of a peduncle or stem.
Divaricate. Branches spreading so as to form more than a right angle with the stem above.
Divergent. Branches making a right angle with the stem, or nearly so.
Dorsal. Fixed to the back.
Dorsally compressed. Compressed or flatted on the back.
Drupe. A pulpy pericarp without valves, containing a nut, or stone.
Ecaudate. Destitute of a cauda, or tail.
Echinate. Prickly; like a hedge-hog.
Elliptic. Longer than wide, and rounded at both ends.
Emarginate. Notched at the end.
Enneandrous. Having nine stamens.
Ensiform Leaf. Sword-shaped: two edged and tapering from base to point.
Entire Leaf. Undivided; without cleft, notch, or tooth, on its margin.
Equal. Similar parts equal among themselves,—as the segments of a calyx, &c.
Erose. Irregularly notched: as if gnawed.
Exsert Stamens. Protruding out of the corolla.
Falcate. Sabre-form; or Scythe-form.
Fasciculate. Growing in bundles, or bunches, from the same point.
Fastigiate. Level-topped: the summit of the branches rising to the same height.
Filament. That part of the stamen which supports the Anther.
Filiform. Slender and round like a thread.
Fimbriate. Fringed by narrow segments of its own substance.
Flaccid. Too limber to support its own weight.
Flexuose. Changing its direction in a curve.
Floret. A little flower: one of the number in aggregate, or compound flowers.
Foliaceous. Resembling a leaf: also leafy, or furnished with leaves.
Foliole. A leaflet, or partial leaf.

Follicle. A seed-vessel of one valve, opening on one side longitudinally: as in Asclepias, &c.
Fructification. A term comprising both flower and fruit.
Frutescent. Shrubby: stems woody.
Funiculus. The little cord, or medium, by which seeds are connected with the seed vessel, or receptacle.
Funnel-form. Corolla monopetalous, and tubular below, resembling a funnel.
Fusiform Root. Spindle-shaped; tapering downwards:—as carrot, parsnep, &c.
Galea. A helmet: the upper lip of a ringent corolla.
Galeate. Helmet-like: resembling a casque, or helmet.
Geniculate. Forming an obtuse angle at the joints, like the knee moderately bent.
Genus. A family, or number of plants which agree with one another in the structure of the flower and fruit. The third branch, or subdivision, in a systematic arrangement.
Germ That part of the pistil which afterwards becomes the fruit.
Gibbous. Hump-backed; hunched, or swelled out, on one or both sides.
Glabrous. Smooth and naked: without any pubescence, or roughness.
Gland. A round, or roundish appendage, which mostly secretes a moisture.
Glandular. Having glands. *Glandular-pilose.*—Having hairs with little glands on them.
Glaucous. Silvery; or greenish grey: covered with a sea-green mealiness.
Globose. Spherical; round on all sides.
Glomerate. Having flowers or spikelets variously heaped together; as in Orchard grass, &c.
Glomerules. Small heads, or clusters.
Glumaceous. Resembling glumes
Glume. Chaff or husk. The calyx or corolla of grasses.
Glumose. Having glumes.
Graniferous. Bearing a grain, or grains.
Gynandrous. Having the stamens, or anthers inserted on the style.
Habit of Plants. Their general external appearance and mode of growth.
Habitat, or *Habitatio.* The native place of growth of plants.
Halved. One-sided; as if one half had been taken off.
Hastate. Halbert-shaped; triangular, with processes on each side, near the base.
Heptandrous Having seven stamens.
Herbaceous Not woody.
Herbarium. A collection of dried plants.
Hermaphrodite. Having both stamen and pistil perfect in the same flower.
Hexandrous Having six stamens.
Hirsute. Rough-haired. Covered with stiffish hairs, but less stiff than bristles [ths.
Hispid. Bristly: beset with short, stiff hairs, or bris-
Hoary. Covered with a white pubescence.
Horn. See Spur.
Hybrid. A mule: a plant produced by the mixture of two different species.
Imbricate. Scales lying over each other, like shingles, or tiles, on a roof.
Imperfect Flower. Wanting either stamen or pistil.
Incised. Cut in, like a gash with a knife; but not so deep as to be termed *cleft.*
Inclinate, or *Inclined.* Bent towards each other; or towards something different.
Included. Shut in, or concealed; as stamens in the corolla: opposed to exsert.
Incomplete flower Wanting either calyx or corolla.
Incrassate Peduncle. Enlarged or thicker towards the flower, or fruit.
Incumbent. Leaning upon, or resting against.
Incurved. Bent, or curved inwards.
Indigenous. Growing naturally or originally in a country.
Inferior Calyx. Below the germ, and inclosing it.
Inferior Germ. Below the calyx. An inferior calyx implies a superior germ; and vice versa.
Inflated. As if swelled, or blown up, with wind.
Inflected, or *Inflexed.* Bent suddenly inwards.
Inflorescence. Mode of bearing flowers; as Raceme, Panicle, Spike, Umbel, &c.
Internode. The space between knots, or joints.
Interrupted Spike. Having intervals, either of smaller flowers, or leaves, or naked.
Interruptedly-Pinnate. Having smaller leaflets between each pair of larger ones.
Involucel. A small, or partial Involucre; particularly applied to the Involucre of a partial umbel, or subdivision of an umbel.
Involucellate. Having Involucels.
Involucrate. Having Involucres.
Involucre. A sort of calyx remote from the flowers generally at the base of umbels, and aggregated flowers.
Involute. Rolled inwards.
Irregular. Differing in figure, size, or proportion of parts among themselves.
Keel. The lower petal of a papilionaceous flower; inclosing the stamens and pistil.
Keeled. Having a ridge resembling the keel of a boat.
Kernel. Seed which is contained in a Nut.
Knot. A swelling joint; particularly in the stem of the grasses.
Labiate. A calyx or corolla divided at the top so as to resemble lips.
Lacerate. Divided into irregular segments, as if torn.
Laciniate. Jagged: irregularly divided and subdivided, as if cut or torn.
Lanate. Woolly: covered with curly, close, thick pubescence.
Lanceolate. Much longer than wide, and gradually tapering, from near the base to the apex, like the head of an ancient Lance.
Lance-ovate, Lance-linear, &c. Partaking of both forms, but more of the latter: which is the rule in construing compound terms.
Lanuginous. Downy; or clothed with soft hairs.
Lateral. On one side.
Laterally compressed. Compressed, or flatted on the sides.
Latticed. Crossing each other, like net-work.
Lax. Loose, or limber.
Leaflets. The small leaves in a compound leaf.
Leaf-like. Resembling a leaf.
Leafy. Furnished, or abounding, with leaves.
Legume. A seed vessel of two valves, with the seeds affixed to one suture only.
Ligula. The stipule of the grasses; at the throat, or base of the leaves.
Ligulate. Strap-shaped; flat and linear: a *ligulate corolla* consists of a single strap-like petal, which is tubular at base only,—as in the Dandelion.
Limb. The upper spreading part of a monopetalous corolla.
Linear. Of the same breadth throughout, except at the very extremities.
Linear-lanceolate. Lanceolate, inclining to linear.
Lingulate. Like a little tongue.
Lip. The division, either upper or lower, of a labiate corolla, or calyx
Lobe. The segment of a deeply divided simple leaf; frequently rounded.
Lobate. Divided into lobes.
Lomeut. A jointed pod: or legume with transverse partitions.
Lunulate. Crescent-shaped: resembling the form of a new moon.
Lyrate. Pinnatifid, with the largest segments at the apex.
Male Flower. Bearing stamens only.
Manyfold. Of many parts: overlapping one another

Marcescent. Shrivelling, or withering, without falling off.
Margin. The circumference, or edge.
Marginate. Having a margin different in some measure from the disk.
Melliferous. Producing or containing honey.
Membranaceous. Skinny; like parchment. Without pulp.
Midrib. The main nerve, or middle rib, running from the base to the apex.
Monadelphous. Having the filaments all united in one set.
Moniliform. Resembling a string of beads.
Monogynous. Having but one pistil.
Monoicous. Having the male and female flowers distinct, on the same plant.
Monopetalous. Consisting of one petal.
Monophyllous. Consisting of one leaf.
Mucronate. Having a dagger-point; which in leaves, seems to be an elongation of the midrib.
Multifid. Many cleft: cleft into many segments.
Muricate. Having subulate points scattered over it: or armed with prickles.
Mutic. Awnless: having no awn.
Naked. Without the usual covering, or appendage: as a stem without leaves—leaves without pubescence—a corolla without a calyx, or crown,—seeds without a pericarp—a receptacle without chaff, hairs, &c. a verticil without leaves—or an umbel without an involucre.
Nectary. The honey-bearing appendage of a flower; of various forms—as a horn, spur, cup, scale, gland, &c. Any appendage to a flower, which is neither calyx, corolla, stamen, nor pistil, is called a Nectary.
Nerves of a leaf, &c. Rib-like fibres running from the base towards the apex.
Neutral Flower. Having neither stamen nor pistil.
Ob-. In the composition of terms, means inversely, or reversed: as
Obconic. Conic, with the apex downwards.
Obcordate. Heart-form, with the apex next to the place of insertion.
Oblanceolate. Inversely lanceolate.
Oblique. A position between horizontal and vertical. Also applied to leaves, &c. which are as it were cut obliquely—or whose bases are shorter on one side.
Oblong. More than twice as long as broad, with nearly parallel sides, and rounded at both ends.
Obovate. Ovate, with the broadest end outwards.
Obsolately. Obscurely; as if worn out.
Obtuse. Ending bluntly, or with a rounded apex, but within the segment of a circle.
Octandrous. Having eight stamens.
Opake, or *Opaque.* Neither transparent nor shining.
Orbicular. Circular; the length and breadth equal, and the circumference an even circular line.
Order. The second division, or branch, in a systematic arrangement.
Oval. Longer than broad, with the two ends of equal breadth, and curvature; and the sides curving from end to end.
Ovate. Egg-shaped: the form of a longitudinal section of an egg.
Ovate-lanceolate. Lanceolate, inclining to ovate.
Ovate-oblong. The ovate form lengthened out.
Palate. A prominence in the lower lip of a labiate corolla, which tends to close the throat.
Palmate Leaf. A simple leaf deeply divided, and the lobes spreading so as to resemble a hand with the fingers spread.
Panduraform Guitar-form, or Fiddle-form. Oblong, with sides contracted, and broadish at the ends.
Panicle. A species of inflorescence in which the flowers are scattered on peduncles variously and irregularly subdivided: as Oats, &c.
Paniculate. Disposed in the form of a panicle.
Papilionaceous Flower. Butterfly-shaped; or Pea-blossom: when complete, consisting of four petals—the broad upper one called the *banner*—the two side ones called the *wings*—and the lower one, called the *keel.*
Papillate, or *Pappillose.* Having the surface covered with fleshy dots, or points; like little teats.
Pappus. The crown on the top of some seeds, by which they are dispersed; usually hairy, or feathery—sometimes chaffy.
Parasitic. Growing on, or drawing sustenance from, another plant.
Parted. Deeply divided, almost to the base.
Partial. Applied to an entire part of a general whole: as a partial Involucre, Umbel, &c. which, however, are also expressed by the words Involucel, Umbellule, &c.
Partition. A wall, or membrane, separating a pericarp internally into cells.
Pectinate. Finely pinnate, or pinnatifid, so as to resemble the teeth of a comb.
Pedate Leaf. When the segments are narrow, and divided almost to the petiole; resembling a bird's foot.
Pedicel. A partial peduncle, the ultimate division, next to the flower, or fruit.
Pedicellate. Having a pedicel.
Peduncle. The footstalk, or stem, which bears the flower and fruit, when it does not proceed directly from the root of the plant.
Pedunculate. Having a peduncle.
Peltate Leaf. Like a shield: having the petiole inserted into the disk, instead of the edge.
Pencil-form. Resembling a hair pencil, or paintbrush.
Pentagynous. Having 5 styles.
Pentandrous. Having 5 stamens.
Pentapetalous. Having 5 petals.
Perennial. Continuing more than 2 years.
Perfect Flower. Having both stamen and pistil; or, at least, anther and stigma.
Perfoliate Leaf, or rather Stem. Having the stem running through the leaf.
Perianth. A flower cup: a species of calyx, embracing, or contiguous to, the other parts of the fructification.
Pericarp. The seed vessel: the case or substance, which encloses or covers the seeds.
Persistent. Remaining on: as a *calyx* that remains on the fruit after the corolla falls off—*stipules* that remain after the leaves have fallen—or *leaves* that continue after the season is over.
Petal. The delicate flower-leaf. In flowers of one petal, the corolla and petal are the same. In flowers of more than one petal, the corolla is the whole, and the petals are the parts.
Petal-form, Petal-like, or *Petaloid*, resembling a petal: as the stigmas of the Iris.
Petiolate. Having a petiole.
Petiole. The footstalk, or stem which bears the leaf.
Phænogamous. Having the stamens and pistils sufficiently apparent for classification. Applied to all plants not included in the Class Cryptogamia.
Pilose. Hairy: having distinct straightish hairs: or when applied to a *pappus*, it means composed of such
Pinnate Leaf. Having distinct leaflets on opposite sides of a simple petiole.
Pinnatifid Leaf. Cleft so as to resemble a pinnate leaf; but the divisions do not reach to the mid-rib—being *segments*, and not *leaflets*.
Pistil. The central portion of a fertile flower; consisting of the *germ*, *style*, and *stigma*, when complete. Sometimes the style is wanting.
Plicate. Plaited: folded, or crimped, like a fan, when nearly full spread
Plumose. Feathered; or after the manner of a feather. A *plumose pappus* is when a hair has other hairs arranged on opposite sides of it: as in the genus Cnicus, &c.

Pod. A seed-vessel of two valves, with the seeds attached to one or both sutures. It is applied to either a Legume, or a Silique.
Pollen. The farina, or fertilizing dust of the Anther.
Pollinia. Masses of Pollen; as in gynandrous plants, &c.
Polyadelphous. Having the stamens united below, in three or more sets, or parcels.
Polyandrous. Having more than ten stamens, inserted on the receptacle.
Polygamous. Having some flowers perfect, and others either male, female, or neuter.
Polymorphous. Assuming many different forms.
Pome. A pulpy, or fleshy pericarp without valves, containing a capsule; as the apple, &c.
Porous. Full of holes, cells, or tubular openings.
Præmorse. End-bitten. Ending blunt as if bitten off.
Prickle. A sharp process fixed to the bark only; and not originating in the wood.
Prismatic. Linear, with several flat sides.
Procumbent. Lying on the ground, without putting out roots.
Proliferous. Putting forth branches or flowers from the centre of the top of a preceding one.
Prostrate. Lying flat, or close on the ground: nearly the same as procumbent.
Pruinose Covered with a mealy substance, like a plum
Pseudo-pinnate. Falsely pinnate; the leaflets confluent, or not distinctly articulated at base.
Pubescence. All sorts of hairy, bristly, wooly, or velvety covering of a plant.
Pubescent. Having some sort of pubescence, or hairy covering.
Pulp. A soft fleshy, or juicy mass.
Pulverulent. Powdery, or dusty.
Punctate. Dotted, or sprinkled with colored specks.
Pungent. Sharp pointed, or prickly.
Pyramidal. Tapering upwards.
Quadrifarious. In 4 directions: facing, or pointing 4 ways.
Quinate. Having 5 leaflets; or growing in fives.
Raceme. A mode of flowering in which the peduncle has short lateral pedicels; as the grape, &c
Racemose. Having the flowers in racemes; or approaching that mode.
Rachis. The receptacle which collects florets longitudinally in a spike; as in wheat, &c.
Radiate. Having rays. Applied to compound flowers which have spreading marginal florets.
Radical. Proceeding from the root; as leaves, &c.
Radicant, or *Radicating.* Sending out roots, or striking root.
Radicle. The little fibrous branch of a root.
Ramose. Branching.
Rays. The spreading florets round the margin of a compound flower. Also the marginal florets of an umbel.
Receptacle. The base which connects and supports the other parts of the fructification.
Recurved. Curved downwards.
Reflexed. Bent back so as nearly or quite to touch the stem or peduncle.
Regular. Having similar parts equal among themselves.
Remote. Seated or growing at a distance.
Reniform. Shaped like a kidney: roundish and hollow at base, without angles.
Repand Leaf. Having an angular margin, with shallow sinuses between, as if cut out by segments of circles.
Resupinate Turned as it were upside down.
Reticulate. Netted: having veins crossing each other like net work.
Retro-aculeate. Having prickles pointing backwards.
Retrorsely. Pointing backwards.
Retuse. Ending in a blunt, or shallow sinus.
Revolute. Rolled backwards, or outwards
Rhombed Leaf. Having 4 equal sides, but the angles not right angles.
Rhomboid. Having opposite sides equal, and the angles not right ones.
Rhomb-ovate. Ovate, inclining to a rhomb.
Rib. The continuation of the petiole along the middle of the leaf.
Rigid. Stiff, inflexible, or not pliable.
Ringent. Gaping; the lips open.
Rostrate. Beaked: having a process resembling the beak of a bird.
Rotate Corolla. Wheel shaped: monopetalous, and spreading almost flat, without any, or a very short, tube.
Rotund. Roundish, or orbicular; without angles.
Rough. Covered with dots which are harsh to the touch.
Round See *orbicular*, and *teretc.*
Rugose. Wrinkled.
Runcinate. Pinnatifid, with the segments pointing backwards; like the teeth of a mill saw.
Runner. A shoot producing roots and leaves at the end only; and from that place giving rise to another plant.
Sagittate. Shaped like the head of an arrow: somewhat cordate, with the side-lobes acute.
Salver-form Corolla Monopetalous, rising from a tube, with a flat limb, or margin.
Samara. A winged pericarp not opening by valves; as in Maple, Ash, &c.
Scabrous. Rough.
Scandent. Climbing; mostly by means of tendrils.
Scape. A peduncle proceeding directly from the root; and mostly leafless.
Scariose. Dry and skinny, generally transparent.
Scattered. Standing without any regular order.
Scutellate. Shaped like a saucer.
Secund. One ranked: all turned towards one side.
Segments. The parts into which a calyx, corolla, leaf, &c. is cut, or divided.
Semi- Half.
Sempervirent. Living through the winter and retaining its verdure.
Sericeous. Silky: covered with very soft close-pressed hairs.
Serrate. Sawed: having sharp notches in the margin, pointing towards the apex. *Doubly-serrate,* having small serratures on the large ones.
Serratures. Teeth resembling those of a saw.
Serrulate. Finely serrate; with very small notches, or teeth.
Sessile. Sitting close; without any footstalk.
Setaceous, or *Setiform.* Bristle form; or resembling a bristle in size and figure.
Setose. Bristly: having the surface set with bristles, or stiff, straight hairs.
Sheath. The prolongation of a leaf down the stem, which it embraces; as in the grasses, &c.
Sheathed. Having a sheath.
Shining. Glossy, bright.
Shrub. A small woody plant, branching near the ground.
Silicle. A little Silique; whose length and breadth are nearly equal.
Silique. An oblong, membranaceous, two valved pericarp, having the seeds fixed along both sutures.
Simple. Undivided: not branched.
Sinuate. Having rounded incisions, or large curved breaks in the margin; as in the leaves of many of the Oaks.
Sinuate-serrate. Having serratures hollowed out.
Sinus. A bay: a rounded incision.
Slender. Thin, or narrow; or both.
Solitary. Standing alone: one in a place.
Spadix. A stem-like receptacle proceeding from a spathe.

Spathaceous. Having a spathe.
Spathe. A sheath: a kind of calyx which first encloses the flower, and after it expands, is often left a distance below it. Sometimes it retains the spadix in its cavity; as in Symplocarpus.
Spathulate, or *Spatulate.* Like a spatula: roundish above, with a long, narrow, linear base.
Species. The fourth, or lowest permanent division of natural objects in a systematic arrangement.
Specific. Belonging to, or distinguishing the species.
Spike. A mode of flowering, in which sessile flowers are arranged along a common, simple peduncle.
Spikelet. A little spike; or one of the subdivisions of a spike.
Spine. A Thorn: a sharp process proceeding from the wood.
Spinescent. Becoming thorny; or inclining to be thorny.
Spinose, or *Spinous.* Thorny; armed with thorns.
Spur. The hinder part of the nectary in some flowers; resembling a Cocks' spur, or a horn.
Spurred. Having a spur.
Squamose. Covered more or less with scales.
Squarrose. Having scales with the points widely divaricating, or spreading every way.
Stamen. The organ of a flower which prepares the pollen; usually standing next to the germ, within the corolla.
Staminiferous. Bearing, or supporting the stamens.
Stigma. The top of the pistil.
Stipe. The little stem which supports the pappus, in some plants—sometimes also the fruit, as in Caulophyllum.
Stipitate. Having a stipe.
Stipule. A leaflet, membrane, or scale, at the base of a petiole, or leaf.
Stipular. Belonging to the stipules.
Stoloniferous. Putting forth suckers.
Striate. Marked or scored with lines, or very superficial grooves.
Strict. Both stiff and straight.
Strigose. Armed with small, rigid bristles, tapering to the point.
Strobile, or *Strobilus.* An ament with woody scales.
Style. That portion of the pistil which is between the germ and stigma: sometimes wanting.
Sub- Much used in composition as a diminutive; in lieu of *somewhat*, or *approaching to*—as *sub*-cordate, for somewhat cordate, &c.
Suberose. Resembling Cork.
Subulate. Awl-form: linear below, but tapering above to a sharp point, and often a little curved.
Succulent. Juicy, full of juice.
Sucker. A shoot from the root.
Sulcate. Furrowed, or grooved.
Supradecompound. More than decompound.
Superior Calyx, or Corolla. Seated above, or proceeding from the upper part of, the germ.
Suture. A seam-like junction of two parts; as the valves of a pod.
Syngenesious. Having the anthers united; with the flowers compound.
Synonyms. Different names for the same thing.
Tendril. A filiform spiral band, by which a plant is fastened to another body.
Terete. Round, or columnar; like a cylinder.
Terminal. Proceeding from, or occupying the end.
Ternate. Three-fold. In threes. Three leaflets on one petiole, as in clover, &c.
Tetradynamous. Having two short, and four long, stamens.
Tetragonous. Having four angles, or corners.
Tetrandrous. Having four stamens.
Tetrapetalous. Having four petals.
Thorn. A sharp process from the woody part of a plant.
Throat. The orifice of the tube, in a ringent corolla.
Thyrsus. A mode of flowering, consisting of a Panicle contracted into an ovate form.
Tomentose. Covered with a fine downy or cottony pubescence, matted together.
Toothed. See dentate.
Torose. Swelling out in ridges, or knobs.
Torulose. Swelling a little in ridges.
Triandrous. Having three stamens.
Triangular. Having three corners, or points.
Tribracteate. Having three bractes, or floral leaves.
Tricuspidate. Having three points.
Trifarious. Facing, or pointing, three ways.
Trifid. Three-cleft.
Trifoliate. Having three leaves, or the leaves arranged in threes.
Trigonous. Three cornered.
Trigynous. Having three styles.
Trilobate. Having three lobes.
Tripetalled. Having three petals.
Tripinnate Leaf. When a petiole has bipinnate leaves ranged on each side of it.
Tripinnatifid. A pinnatifid leaf with the segments twice pinnatifid.
Triquetrous. Three-sided; having three flat sides.
Triternate. When a petiole is biternate, and each branch bearing ternate leaves.
Truncate. The end appearing as if cut off.
Tube. A hollow pipe; the lower hollow cylinder of a monopetalous corolla.
Tuber. A knob in roots, solid, with the component particles all similar
Tubercle. A little rough point, or pimple.
Tuberculate. Having rough points, or tubercles.
Tuberose, or *Tuberous.* Consisting of, or producing tubers.
Tubular. Having a tube, or being in the form of a tube.
Tuft. Growing in a bunch.
Tunicate. Coated: consisting of concentric coats, layers, or membranes.
Turbinate. Top-shaped. A cone with the point downwards.
Turgid. Swelled; but not inflated.
Turion. The tender shoot of a plant, in the spring; as Asparagus, Hop, &c.
Twin. Two connected, or growing together.
Twining. Ascending spirally.
Two-ranked. See distichous.
Umbel. A mode of flowering, where several flower stems diverge from one place, like the braces of an umbrella
Umbelliferous. Bearing the flowers in umbels.
Umbellules. Partial umbels: the sub-divisions of a compound umbel.
Umbilicate. Having a kind of central hollow; resembling a navel.
Unarmed. Having no thorns nor prickles.
Uncinate. Hooked at the end.
Undulate. Wavy: rising and falling like waves.
Unequal. The parts not corresponding in size, form, and duration.
Unequally pinnate. Having an odd, terminal leaflet.
Unguiculate Petal. Having a narrow base, or claw.
Unilateral. Growing on one side of a stem.
Urceolate. Shaped like a pitcher.
Utriculus. A little bladder, or sac.
Valves. The several pieces of a pericarp, which separate naturally on ripening. Also the leaflets composing the calyx and corolla of the grasses: and the scales which close the tube, in some corollas.
Variety. A plant changed by some accidental cause; as soil, culture, climate, &c. but not specifically distinct.
Vaulted. Arched like the roof of the mouth.
Veined. Having the vessels variously branching over the surface.
Ventricose. Bellied: swelling out in the middle.
Verrucose. Warty: covered with wart-like excrescences.

Verticil. A whorl. Flowers, or leaves, surrounding the stem in a ring.
Verticillate. Growing in verticils, or whorls.
Villose, or *Villous.* covered with fine soft hairs; like velvet.
Virescent. Inclining to green.
Virgate. Like a wand, or slender rod.
Viscid. Covered with a tenacious juice.
Viviparous. Producing its offspring alive,—either by bulbs instead of seeds; or by the seeds germinating on the plant, instead of falling off, as usual.
Voluble. Twining or ascending spirally.
Wavy. See Undulate.
Whorl. See Verticil.
Wings. The two side-petals of a papilionaceous flower. Also the membranes affixed to some pericarps, and on the sides of some petioles.
Woolly. Clothed with a pubescence resembling wool.

SUPPLEMENTARY CORRECTIONS, &c. See pages 139--140.

Anxious to rectify as many of my oversights as possible, while opportunity is afforded, I avail myself of a vacant space in this, the last sheet in the printing, to make a few additional corrections. There are doubtless a number more to be made, which have hitherto escaped my notice—notwithstanding considerable care was taken with the proofs. The disadvantages under which I have labored, in getting this little work through the press, can only be duly appreciated by those who know to what unlucky interruptions a Country Physician is perpetually subjected.

Next after LEERSIA ORYZOIDES, *page* 10, insert the reference to *Muhl.*—or rather *Torrey;* which is still better.

FESTUCA FLUITANS. *p.* 13. This is the POA FLUITANS, of *Elliott;* and the GLYCERIA FLUITANS, of *Torrey.*

CAULOPHYLLUM. *p.* 39. I have just had an opportunity to observe the entire correctness of the account of the *fruit* of this plant, as given by Dr. Torrey, from R. Brown. The process, soon after the flower falls off, is very remarkable. The young fruit seems to be a kind of short, membranous silique, or capsule, beaked obliquely with the style, and containing two globular seeds—one of which is generally abortive. The capsule opens laterally, and is pushed to one side by the enlarging, drupe-like seed, which is supported on the erect, clavate funiculus In a few instances, I observe *both seeds perfect,* at least while young, and protruded side by side, in the manner stated.

HELONIAS DIOICA. *p.* 43. Next line after the *Synon.* insert
Fl. Latter end of May, and after. *Fr. mat.* Beginning of October.

CRATÆGUS COCCINEA. *p.* 62. This is said to be *Pentagynous;* but I observe that it has frequently only *three* styles,—and sometimes only *two.* Indeed, the number of styles seems to be variable in all this genus. This species is known here by the name of *White Thorn.*

C. GLANDULOSA? *p.* 62. I have, I think, found the *real* C. glandulosa, this season (1826). The stipules, petioles, and calices, are remarkably glandular, and somewhat viscid. The segments of the calyx are serrate, with glands on the serratures. The *styles* are mostly *three*—sometimes only *two.* The leaves are ovate, sub-lobate, and serrate, smooth and shining—resembling those of C. coccinea, more than any others I have observed. The shrub grows in low grounds—on Jesse Good's land, &c.—4 to 6, or 8 feet high—and flowers about the middle of May. It is called, here, *Black Thorn;* and is not common.

We have also, along Brandywine, what appears to be the C. PUNCTATA, of Elliott, and Torrey;—with obovate-cuneate, sub-plicate leaves—pubescent corymbs—and the calyx with subulate, entire segments. The *styles* are generally *three*—sometimes *two.* It flowers the middle of May.

CYPRIPEDIUM HUMILE. *p.* 95. I have recently found this plant on the Brandywine hills, just above Downingtown: and Dr. W. Worthington informs me he has seen it on the Valley hills, North of the Ship Tavern.

MORUS ALBA. *p.* 101. This species seems to be *dioicous,* in some instances.

FAGUS SYLVATICA. *p.* 105. In the first line of the *Obs.* for "correct," read *incorrect.* I have examined many trees of this species; and find them all *monœcious.* It may, however, be *dioicous* in some instances.

FLORULA CESTRICA.

CLASS I. MONANDRIA.

ORDER, DIGYNIA.*

1. CALLITRICHE. *Nutt. Am. Gen.* 5.

[Fancifully derived from the Greek, *Kallos*, beauty, and *Thrix*, hair; in reference to the floating tufts of leaves.]

CALYX inferior, 2 leaved. COROLLA 0. SEEDS 4, naked, compressed.

C. HETEROPHYLLA. *Ph.* Upper leaves spathulate-obovate; lower ones linear, obtuse, emarginate.
Synonym. C. verna: *et* C. autumnalis? *Willd.* *Vulgo*—Water Starwort. Star Chickweed.
Floret—Last of April till September. *Fructus maturus*—
Habitat—Standing water of springs and rivulets: frequent: 6 to 18 inches long.

Obs. Herbaceous: continues green through the winter. This plant varies in size and features, according to the depth of water in which it grows, and other circumstances: and I entirely concur with Dr. W. P. C. Barton (*Flor. Philad.*) in the opinion, that the C. *linearis*, of Pursh, is nothing more than a *variety*.

2. CINNA. *Nutt. Gen.* 69.

[An ancient Greek name, from *kein*, to heat; a supposed quality of the original plant. *De Theis.*]

CAL. 2 valved, 1 flowered, compressed, nearly equal. COR. 2 valved, linear, naked at base, shortly stipitate.

C. ARUNDINACEA. *Muhl.* Glabrous; panicle large, weak; dorsal valve sub-awned below the apex.
Synon. Agrostis Cinna. *Ph.* *Vulgo*—Reed-like Cinna.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Moist, rich woodlands: Patton's woods; Brandywine: frequent.

Obs. A tall grass, 2 to 5 feet high. Notwithstanding the suggestions of such high authority as Jussieu, Schreber, and Pursh, I incline to agree with Mr. Nuttall, in keeping this plant distinct from *Agrostis*; and, with a view to one of the chief advantages of the *Sexual System*, in the study of Botany, I unite with Dr. Muhlenberg in placing it where that system would lead the student to look for it; viz. in the class *Monandria*.

CLASS II. DIANDRIA.

ORDER, MONOGYNIA.

A. FLOWERS INFERIOR. a. *Corolla monopetalous, regular.*

3. LIGUSTRUM. *Gen. Pl.* 23.

[Supposed to be from the Lat. *ligare*, to tie, or bind; from the use made of the branches.]

CAL. 4 toothed. COR. 4 parted; divisions ovate. BERRY 2 celled, 4 seeded.

L. VULGARE. *Ph.* Leaves lanceolate, acute; panicle crowded.
Vulgo—Privet, or Privy-bush. Prim.
Fl. Beginning of June. *Fr. mat.* Beginning of October.
Hab. Light, sandy soils: along fences, and road-sides: frequent.

Obs. A shrub, 4. to 6 or 8 feet high: flowers white, berries black. Native of Europe, but has become naturalized here. It was formerly tried for *hedging;* but does not answer the purpose. The *leaves* are stimulant, and are often chewed, or used in gargles, as a popular remedy for ulcers in the mouth and throat. Schœpf says the berries afford a purple or black pigment. Mr. Nuttall has omitted this plant.

* I have not met with any plant, in this vicinity, belonging to the order *Monogynia* of this class: though it is possible, notwithstanding numerous and diligent searches, that the *Hippuris* may have escaped my notice.

4. CHIONANTHUS. *Nutt. Gen.* 9.

[From the Gr. *Chion*, snow, and *Anthos*, a flower; from its snow-white petals.]

CAL. 4 cleft. COR. deeply 4 parted; divisions long, linear. DRUPE 1 seeded. *Nut* striated.

C. VIRGINICA. *Marshall.* Peduncles mostly trifid, three flowered; leaves oval, entire.
Vulgo—Fringe tree. Snow-drop tree. White ash.
Fl. Beginning of June. *Fr. mat.*
Hab. Hilly woodlands: Banks of the Brandywine, near Worth's mill: rare.

Obs. A small, branching tree, 12 to 20 feet high: much admired for its white, fringe-like flowers. This appears to be the *broad leaved* variety, of Aiton; or *montanus*, of Pursh. Marshall says (*Arbust. American.*) the bark of the root bruised, and applied to fresh wounds, was accounted by the aborigines a specific, in curing them without suppuration: but *such specifics* are pretty much discarded, in modern surgery.

b. *Corolla monopetalous, irregular: Fruit capsular.*

5. VERONICA. *Nutt. Gen.* 11.

[Etymology obscure: *Boerhaave* says, "Nomen habet a *Veronice* Principe fœmina inventrice."]

CAL. 4 parted. COR. rotate, 4 lobed; lower segment narrowest. CAPS. 2 celled, obcordate.

§ 1. *Flowers in a terminal raceme.*

V. SERPYLLIFOLIA. *Sm. Cyclopæd.* Raceme somewhat spiked; leaves ovate, slightly crenate, smooth.
Vulgo—Smooth Speedwell. Paul's Betony. Thyme-leaved Veronica.
Fl. Middle of May. *Fr. mat.* Middle of June.
Hab. Fields and roadsides: common. 2 to 6 inches high: flowers pale blue, striped.

§ 2. *Flowers in lateral racemes.*

V. OFFICINALIS. *Sm. Cycl.* Racemes pedunculate; leaves obovate, hairy; stem procumbent, rough-haired.
Vulgo—Common, or Male Speedwell.
Fl. Last of May, and after. *Fr. mat.* Last of July, and after.
Hab. Dry, sandy banks: woodlands, and roadsides: common. About 1 foot long: flowers pale blue, veined.

Obs. Linnæus and Schœpf say it is vulnerary and tonic; but it is probably little worth, as a medicine.

V. ANAGALLIS. *Sm. Cycl.* Racemes opposite, long, loose; leaves lanceolate, serrate; stem erect, smooth.
Vulgo—Long-leaved Brooklime. Pimpernel. Water Speedwell.
Fl. Beginning of June, and after. *Fr. mat.* Beginning of August, and after.
Hab. Ditches and rivulets: frequent. 12 to 18 inches high: flowers blue.

V. BECCABUNGA. *Sm. Cycl.* Plant smooth, lucid green; leaves oval, flat, crenate; stem creeping.
Vulgo—Brooklime. Wallink.
Fl. Last of May, and after. *Fr. mat.* Last of July, and after.
Hab. Spring heads, and rivulets: frequent. 9 to 18 inches long: flowers blue.

Obs. Continues green through the winter; and is closely allied, in habit, with the foregoing. The expressed juice is a popular remedy for croup, or cynanche trachealis: and certain Empirics, among the Germans, prescribe the herb, (under the name of *Wallink,*) in cachectic cases—to be taken in infusion. Its virtues, however, are believed to be very trifling, if any.

§ 3. *Flowers solitary.*

V. AGRESTIS? Pilose; branches assurgent; stem leaves ovate, crenate; floral leaves lanceolate, entire.
Fl. Beginning of May. *Fr. mat.* Beginning of June.
Hab. Fields, roadsides, and exsiccated swamps: frequent. 2 to 6 inches high: flowers pale blue, caducous.

Obs. I have been a good deal puzzled with this species. Dr. Baldwin and Mr. Schweinitz both pronounced it V. agrestis; otherwise I should unhesitatingly have set it down as the V. *arvensis* of Smith, and Elliott. The lower, or stem leaves are opposite, ovate-cordate, incised-crenate; the floral leaves are subsessile, alternate, lanceolate, entire, or sometimes incised near the base; flowers on short peduncles, not one-third the length of the leaves (See *Smith*); corolla shorter than the calyx, (See *Ell.*) and remarkably caducous: capsule ciliate. There is some confusion and difficulty in the case, which I am unable to elucidate.

V. PEREGRINA. *Sm. Cycl.* Flowers sessile; leaves oblong, obtuse, toothed or entire, smooth; stem erect.
Vulgo—Knot-grass-leaved, or Purslane-leaved Speedwell. Neckweed.
Fl. Beginning of May. *Fr. mat.* Beginning of June.
Hab. Gardens, and other cultivated grounds: common. 4 to 8 inches high: flowers white, small.

Obs. This species is said to have been found useful in some scrophulous affections; and hence the name, "Neckweed." *See Barton's Med. and Phys. Journal, Vol. 3, part 1, p. 24.* All the species here enumerated have been supposed to be naturalized foreigners; (See *Nutt.* & *Elliott.*) though Dr. Smith (*Cyclopæd.*) notes them all, except V. agrestis, as natives of our country.

6. LEPTANDRA. *Nutt. Gen.* 12.

[From the Gr. *Leptos*, slender, and *Aner*, *andros*, male; in reference to the fructification.]

CAL. 5 parted. COR. tubular-campanulate; border 4 lobed, unequal. CAPS. ovate, acuminate.

L. VIRGINICA. *Bart. Fl. Phil.* Stem erect; leaves verticillate; spikes terminal, long.
Synon. Veronica virginica. *Auctorum.* *Vulgo*—Tall Veronica. Virginian Speedwell.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Low grounds, and borders of woodlands: frequent. 2 to 5 feet high: flowers white.

Obs. Mr. Nuttall, who separated this from the foregoing genus, remarks that the leaves are "*never* simply opposite, or *ternate;*" but I have several specimens with the leaves altogether ternate.

7. GRATIOLA. *Nutt. Gen.* 14.

[Lat. *Gratia*, grace, or favor; on account of its supposed medical virtues.]

CAL. 5 parted. COR. tubular, resupinate. *Stam.* 4, 2 sterile. CAPS. dissepiment contrary to the valves.

G. VIRGINICA. *Ell.* Stem assurgent, mostly terete; leaves oval-lanceolate, attenuate at base, toothed.
Fl. Beginning of June, and after. *Fr. mat.* Last of June, and after.
Hab. Low, muddy places; ponds, &c. frequent. 4, to 10 or 12 inches high: flowers yellow, or dirty white.

Obs. There is considerable variety in the appearance of this plant; and, I think, some confusion and obscurity in the descriptions of it. I submitted my specimens to Mr. Schweinitz, who thinks they are all, probably, mere *varieties* of G. virginica; although the stems, in some instances, are subtetragonous, and the peduncles nearly as long as the leaves. One specimen from the forks of Brandywine, flowering as late as October, (*tube* yellow, *limb* white, with a tinge of red,) Mr. S. thinks is the G. *caroliniana*, of Le Conte; but in its general features it resembles the others.

8. LINDERNIA. *Nutt. Gen.* 15.

[So named in honor of *F. B. von Lindern*, a German Botanist.]

CAL. 5 parted. COR. tubular, bilabiate. *Stam.* 4, 2 longer sterile. CAPS. dissep. parallel with the valves.

L. DILATATA? *Ell.* Leaves oblong-ovate, subamplexicaul; peduncles square, nearly as long as the leaves.
Synon. L. pyxidaria? *Ph.* Gratiola anagallidea? *Mx.* *Vulgo*—Pimpernel.
Fl. Middle of July till September. *Fr. mat.* Middle of August, and after.
Hab. Low, swampy grounds: Patton's; Brandywine: frequent. 4 to 8 inches high: flowers pale blue.

Obs. This plant closely resembles Gratiola, in habit. The capsules, in my specimens, are *quite as long* as the calyx; (See *Pursh.*) and in no instance is the peduncle "longer than the leaves." (See *Elliott.*) Yet I have the authority of Mr. Schweinitz for the above designation.

9. CATALPA. *Nutt. Gen.* 16.

[A name said to have been derived from our Southern Indians.]

CAL. 2 parted. COR. 5 parted, ventricose. *Stam.* 2, with 2 or 3 sterile filaments. CAPS. long, cylindrical.

C. CORDIFOLIA. *Ell.* Leaves cordate, acuminate; flowers in panicles.
Synon. C. syringæfolia. *Ph.* Bignonia catalpa. *Willd.* &c. *Vulgo*—Catawba. Bean tree.
Fl. Latter end of June. *Fr. mat.* Middle of October.
Hab. Gravelly soil: Jos. Taylor's; Great-valley hills: not common.

Obs. A branching, ornamental tree, 12 to 20 feet high: flowers variegated, yellowish white, dotted with purple; elegantly figured in *Mx.*'s *Arbres Forestiers de l'Amerique.* It is rarely to be met with, except about old settlements; where it has evidently been introduced. I have observed it, occasionally, to be completely *Didynamous.*

10. UTRICULARIA. *Nutt. Gen.* 19.

[So named from the *Utriculi*, or little bladders, attached to its leaves.]

CAL. 2 leaved. COR. ringent, spurred. CAPS. globular, 1 celled, many seeded.

U. VULGARIS. *Bart. Fl. Phil.* Nectary conical; upper lip reflexed at the sides; scape upright.
Vulgo—Bladder wort. Hooded milfoil.
Fl. Latter end of June. *Fr. mat.*
Hab. Pond, near the forks of Brandywine: rare. Flowers yellow.

Obs. About 20 years ago, I found another species in this vicinity, which the late Professor Barton pronounced to be U. *setacea;* but I have not met with it since.

c. *Corolla monopetalous: Flowers mostly labiate: Four naked seeds.*

11. LYCOPUS. *Nutt. Gen.* 21.

[Gr. *Lykos*, a wolf, and *Pous*, a foot; "quia veteres credebant hujus plantæ folia *pedes Lupi* referre." *Boerh.*]

CAL. 5 toothed. COR. 4 lobed; upper segment broader, and emarginate. SEEDS 4, retuse.

L. VIRGINICUS. *Ell.* Leaves broad-lanceolate, serrate, tapering at base; calyx acute, shorter than the seeds.
Vulgo—Water Horehound.
Fl. Middle of July, and after. *Fr. mat.* Middle of October.
Hab. Swamps, and moist woodlands: common. 12 to 18 inches high: flowers white; in whorls.

Obs. The *variety* which Pursh calls *quercifolius* (if, indeed, it be not a distinct species,) is also common in this vicinity. It is said to be a principal medicine with certain noted Empirics, known here by the name of "*Lancaster Doctors*," who prescribe the infusion as a sovereign remedy for what they call a "*Dry Liver*,"—(Nodus vindice dignus!) an infirmity which, they allege, afflicts a large proportion of those credulous persons who resort thither,—or send their urine.

12. CUNILA. *Nutt. Gen.* 22.

[A name borrowed from the ancient Roman naturalists; etymology uncertain.]

CAL. cylindrical, 5 toothed. COR. ringent; upper lip erect, flat, emarginate. *Stam.* 4, 2 sterile.

C. MARIANA. *Ell.* Leaves opposite, sessile, ovate, slightly serrate, dotted; corymbs axillary and terminal.
Vulgo—Dittany.
Fl. Last of July till October. *Fr. mat.* Middle of September, and after.
Hab. Dry hills and woodlands: Barrens, abundant. About 1 foot high: flowers pale purple.

Obs. A pleasant, aromatic herb. The infusion is popular, and deservedly so, as an agreeable febrifuge, or diaphoretic draught.

13. HEDEOMA. *Nutt. Gen.* 23.

[Perhaps from the Gr. *Hedys*, *hedeos*, sweet, or pleasant; on account of its fragrance.]

CAL. bilabiate, gibbous at base; dentures subulate. COR. ringent. *Stam.* 4, 2 sterile.

H. PULEGIOIDES. *Ell.* Leaves oblong, serrate; flowers axillary, verticillate.
Synon. Cunila pulegioides. *Muhl. Mx. Willd.* &c. *Vulgo*—Pennyroyal.
Fl. Beginning of August. *Fr. mat.* Last of September.
Hab. Dry, gravelly soils: Fields, roadsides, &c. common. 4 to 10 inches high: flowers pale blue.

Obs. A grateful and warmly aromatic herb. It is a diaphoretic and carminative; and is also popular as an emmenagogue.

14. MONARDA. *Nutt. Gen.* 24.

[So named in honor of *Nicholas Monardes*, a Spanish Botanist.]

CAL. 5 toothed, cylindric. COR. ringent; tube long; upper lip linear, enclosing the filaments.

M. MOLLIS. *Ph.* Hoary-pubescent; exterior bractes cordate-ovate; corolla hairy; apex of the galea bearded.
Synon. M. allophylla. *Mx.* M. oblongata? *Muhl. Vulgo*—Horse mint. Wild Burgamot.
Fl. Latter end of July. *Fr. mat.* Middle of September.
Hab. Sandy banks, and fence-rows; along Brandywine: frequent. About 2 feet high: flowers pale purple.

Obs. A species embracing numerous *varieties*; as Michaux has justly remarked.

M FISTULOSA. *Ph.* Sparsely hirsute; heads proliferous; exterior bractes oblong, acute; petioles ciliate.
Fl. Middle of July. *Fr. mat.* Beginning of September.
Hab. Fence-rows, &c. along Brandywine: frequent. About 2 feet high: flowers greenish white.

Obs. This, and the foregoing, are indiscriminately known by the common names of Horsemint, and Wild Burgamot. They have been used, in infusion, in some cases of *gravel*, with apparent benefit; and are quite popular as a remedy in that complaint—though I believe the relief afforded is rarely durable.

15. SALVIA. *Nutt. Gen.* 25.

[From the Lat. *salvare*, to save; from its supposed medical powers.]

CAL. tubular, bilabiate. COR. ringent. *Stam.* 2 fertile; the filaments transversely pedicellate.

S. LYRATA. *Ell.* Radical leaves lyrate; stem nearly leafless, retrorsely pubescent.
Vulgo—Meadow Sage. Wild Sage. Cancer weed.
Fl. Latter end of May, and after. *Fr. mat.* Beginning of July.
Hab. Sterile meadow banks, and woodlands: frequent. 12 to 18 inches high: flowers blue.

Obs. Mr. Elliott says the fresh radical leaves bruised and applied to warts, will generally remove them.

16. COLLINSONIA. *Nutt. Gen.* 26.

[In honor of *Peter Collinson*, of London; a patron of botanical science.]

CAL. bilabiate; upper lip 3 toothed, lower bifid. COR. unequally 5 lobed; lower lobe fringed.

C. CANADENSIS. *Ph.* Leaves broad, ovate, smooth; panicle compound, terminal.
Vulgo—Knot-root. Horseweed. Horsebalm. Richweed.
Fl. Middle of July till September. *Fr. mat.* Beginning of October.
Hab. Borders of rich woodlands: common. 1 to 3 feet high: flowers yellow.

Obs. It rarely perfects more than *one seed*, which is large and globular. Schœpf enumerates several diseases in which this plant is useful; but it is not much employed. The large soft leaves are sometimes used in dressing blisters.

B. FLOWERS SUPERIOR. a. *Complete.*

17. CIRCÆA. *Nutt. Gen.* 27.

[Fancifully named, from *Circe*, the fabled enchantress of antiquity.]

CAL. 2 leaved. COR. 2 petalled. CAPS. ovate, hispid, 2 celled, not opening.

C. CANADENSIS. *Muhl.* Stem erect; leaves opposite, ovate, toothed, opake, somewhat glabrous.
Synon. C. lutetiana. *Willd. &c.* *Vulgo*—Enchanter's Nightshade.
Fl. Beginning of July. *Fr. mat.* Latter end of August.
Hab. Moist woodlands, and shaded places: common. 12 to 18 inches high: flowers reddish white.

Obs. Schœpf, who seems to have found medical virtues in a great number of our plants, says the leaves of this make a good cataplasm for hæmorrhoidal tumors.

b. *Flowers incomplete.*

18. FRAXINUS. *Nutt. Gen.* 781.

[The Latin name of the Ash tree: Etymology obscure.]

Polygamous: CAL. 0, or 4 parted. COR. 0, or 4 petalled. SAMARA 1 seeded; wing lanceolate.

F. AMERICANA. *Mx. Arb.* Folioles petiolate, oval-lanceolate, acuminate, slightly toothed, glaucous beneath.
Synon. F. discolor. *Muhl.* F. alba. *Marshall.* F. acuminata. *Ph. Vulgo*—White Ash.
Fl. Beginning of May. *Fr. mat.*
Hab. Woodlands; low meadow grounds; fence rows, &c. common. 40, to 60 or 80 feet high.

Obs. The leaves in Michaux's plate (*Arbres Forest.*) do not exactly correspond with my specimens. This tree is very valuable for its timber; which is much used by wheelwrights, coach-makers, &c.

F. SAMBUCIFOLIA. *Mx. Arb.* Folioles sessile, ovate-lanceolate, serrate, rounded at base; branches dotted.
Synon. F. nigra. *Marshall.* *Vulgo*—Black ash. Elderleaved ash. Water ash.
Fl. Last of April. *Fr. mat.*
Hab. Wet, low grounds; rivulet and creek sides: not so common. 20 to 40 feet high.

Obs. This species is neither so large nor so valuable as the foregoing.

ORDER, DIGYNIA.

19. ANTHOXANTHUM. *Nutt. Gen.* 71.

[Gr. *Anthos*, a flower, and *Xanthos*, yellow: the spikes of flowers inclining to that color.]

CAL. 2 valved, 1 flowered. COR. 2 valved, acuminate, awned from near the base. *Stam.* much exserted.

A. ODORATUM. *Ell.* Spike oblong, ovate; flowers sub-pedunculate, longer than the awn.
Vulgo—Sweet-scented vernal grass.
Fl. Middle of May, and after. *Fr. mat.* Latter end of June, and after.
Hab. Meadows, and borders of woodlands: common. 12 to 18 inches high.

Obs. This grass emits a very grateful odor, when cut, and partly dry. It is a native of Europe: but has become extensively naturalized here. In all botanical works, arranged according to the *Sexual System*, I think this plant ought to be placed in the class *Diandria*; for it is there, undoubtedly, the student would first look for it.

CLASS III. TRIANDRIA.

ORDER, MONOGYNIA.

A. FLOWERS SUPERIOR. a. *Complete.*

20. FEDIA. *Nutt. Gen.* 30.

[Meaning obscure: supposed to be from *Fedus*, an ancient Latin word for *Hœdus*, a kid.]

CAL. 3 or 4 toothed. COR. 5 cleft. CAPS. crowned with the persistent calyx, 3 celled.

F. RADIATA. *Bart. Fl. Phil.* Dichotomous; leaves spathulate-oblong, opposite; flowers terminal.
Synon. Valeriana olitoria. *Willd.* *Vulgo*—Lamb's lettuce. Corn sallad.
Fl. Beginning of May. *Fr. mat.*
Hab. Meadow bank, at Brinton Darlington's: rare. 4 to 10 inches high: flowers blueish white.

Obs. I have seen this plant in great abundance, and of a larger size, near Strasburg, in Lancaster county; but it is very rare here. I cannot think, with Dr. W. P. C. Barton, that it is indigenous,—at least in *this* neighborhood. The radical leaves are used as a sallad, in Europe, and in some of our cities. It has been supposed useful in cases of renal calculi: and Boerhaave, according to Schœpf, says, "Hypochondriacorum summum est solatium." Certainly a comfort of easy acquisition.

b. *Flowers incomplete.*

21. IRIS. *Nutt. Gen.* 34.

[From the hues of the flower resembling those of the *Rainbow.*]

CAL. *spathe*, 2 valved. COR. 6 parted; alternate segments reflexed. *Stigmas* petal-form.

I. VIRGINICA. *Ph.* Flowers beardless; stem ancipital, longer than the leaves; capsules oblong, angles sulcate.
Synon. I. versicolor. *Torrey;* not of *Ph.* nor of the South, *secund. Schweinitz.* *Vulgo*—Wild Flag.
Fl. Latter endof May *Fr. mat.*
Hab. Low, wet places: Dungeon bottom: rather scarce. 2 to 3 feet high.

Obs. A handsome plant; flowers blueish purple, somewhat variegated—with the base of the outer petals yellow.

B. FLOWERS INFERIOR. a. *Corolla monopetalous.*

22. HETERANTHERA. *Beawois, in Act. Philad.* 4. *p.* 173.

[Gr. *Heteros*, different, and *Anthera*, an anther; the anthers in the same flower being dissimilar.]

CAL. *spathe*, 2 to 4 flowered. COR. tubular; limb 6 parted. *Anthers*, 2 linear, 1 triangular. CAPS. 3 celled.

H. RENIFORMIS. *Bart. Fl. Phil.* Leaves roundish, reniform; spathe 3 or 4 flowered.
Synon. H. acuta. *Ph.* Leptanthus reniformis. *Mx. Nutt. Gen.* 40.
Fl. Last of July, and after. *Fr. mat.* Middle of October.
Hab. Swamps, and muddy rivulets: Chester creek; Brandywine: frequent.

Obs. A creeping, herbaceous plant, 4, to 6 or 8 inches long; flowers white. On opening the side of the full grown capsule, longitudinally, the columella, or receptacle of the seeds, splits into *three parts*, so as to present the appearance of three receptacles, to which the seeds are attached by pedicels.

23. SCHOLLERA. *Schreb. Gen. Pl.* 1711.

[In honor of *Fred. Adam Scholler*, a German Botanist.]

CAL. *spathe*, 1 or 2 flowered. COR. tube slender, very long; limb 6 parted. CAPS. 1 celled.

S. GRAMINEA. *Bart. Fl. Phil.* Stem slender, floating or creeping; leaves sessile, linear, grass-like.
Synon. Leptanthus gramineus. *Mx.* Heteranthera graminea. *Ph.*
Fl. Middle of July. *Fr. mat.*
Hab. Shallow waters: Brandywine. 6 to 18 inches long: flowers bright yellow.

Obs. The Schollera, of Schreber, seemed to be lost for a time, until Dr. Muhlenberg restored it. (See *Rees' Cyclop. Art.* SCHOLLERA.) Michaux appears not to have been aware that his Leptanthus gramineus was the same plant. It is pretty abundant in the Brandywine; in some seasons flowering extensively—in others, the flowers rarely to be seen.

b. *Corolla tripetalous.*

24. XYRIS. *Nutt. Gen.* 43.

[From the Gr. *Xyros*, pointed, or sharp; its leaves terminating in a sharp point.]

CAL. glumaceous, 3 valv'd, unequal, the outer coriaceous. COR. petals equal, crenate. CAPS. 1 celled, 3 valv'd.

X. FLEXUOSA. *Ell.* Heads closely imbricate, ovate; calyx shorter than the bractes; leaves twisted.
Synon. X. jupicai. *Mx.* X. caroliniana. *Ph.* *Vulgo*—Yellow-flowering Rush.
Fl. Middle of August. *Fr mat.*
Hab. Wet, gravelly places: rivulet, near Cyrus Barnard's: rare. 9 to 15 inches high: flowers yellow.

c. FLOWERS GLUMACEOUS. a. *Corolla* 0.

25. SCIRPUS. *Nutt. Gen.* 47.

[An ancient Latin name for the *Bullrush;* which belongs to this family.]

CAL. Chaffy scales, imbricated on all sides in a spike. *Style* filiform, deciduous.

§ 1. *Spike solitary, terminal.*

S. TRICHODES? *Muhl.* Stem setaceous, slightly furrowed, purple at base, cespitose; spike ovate.
Synon. S. capillaceus. *Mx.* S. pusillus. *Ph.*
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Barrens, near George Vernon's: rare. 1 to 3 inches high.

Obs. A diminutive and remarkable species, which Mr. Schweinitz thought new to him; but I am inclined to believe it is the plant above referred to.

S. TENUIS. *Muhl.* Stem 4 angled; Sheath purple, truncate, submucronate; spike elliptic; root horizontal.
Fl. Latter end of June. *Fr. mat.*
Hab. Wet places: meadows, &c.—frequent. About a span high.

S. CAPITATUS. *Muhl.* Stem compressed, cespitose; spike ovate; glumes brown, with white margin.
Fl. Middle of May, and after. *Fr. mat.*
Hab. Swamps, and wet places: J. H. Brinton's: frequent. 6 to 12 inches high.

Obs. Dr. Baldwin agreed with Dr. Muhl. in thinking this, and the S. *ovatus* of Willd. to be the same; but he assured me it was very distinct from S. *tuberculosus*, of *Mx.* See *Muhl. Gram. descript.*

§ 2. *Spikes numerous, terminal.* † *Without leaves.*

S. LACUSTRIS. *Muhl.* Stem round, tapering; umbels decompound; spikes ovate; scales mucronate.
Vulgo—Common Bull-rush. Tall club rush.
Fl. Beginning of July. *Fr. mat.* Latter end of August.
Hab. Swampy meadows: Joseph Taylor's: somewhat rare. 4 to 5 feet high.

Obs. Dr. Withering says this species is used, in England, in making the seats of rush-bottomed chairs, &c. but in this country it is not esteemed for that purpose; the S. *triqueter*, or *americanus*, being much preferable. This latter grows in the tide-water marshes along the Delaware; but not in this vicinity.

§ 3. *Spikes numerous, lateral: without leaves.*

S. DEBILIS. *Muhl.* Stem striate, cespitose, base sheathed, point strict; spikes ovate, sessile-conglomerate.
Fl. Middle of August. *Fr. mat.* Middle of September.
Hab. Wet, gravelly places: rivulet, near Cyrus Barnard's: not common. 12 to 18 inches high.

§ 4. *Spikes numerous, subterminal.* †† *Leafy at base only.*

S. CILIATIFOLIUS. *Ell.* Stem striate, setiform; leaves linear, channelled, ciliate; spikes ovate-lanceolate.
Synon. S. capillaris. *Muhl.*
Fl. Latter end of July. *Fr. mat.*
Hab. Arid hills: Righter's field, west of the Barren spur: rare. 2 to 6 inches high.

Obs. I am pretty well satisfied that my specimen is the S. capillaris of *Muhl. Gram. descript. uber.*

S. FERRUGINEUS? *Muhl.* Stem compressed, striate; leaves nearly flat, striate; spikes ovate, acuminate.
Synon. S. puberulus. *Mx?* It does not, however, exactly correspond.
Fl. Latter end of July. *Fr. mat.*
Hab. Moist places on the Barren ridge: frequent. 3 to 9 inches high.

§ 5. *Spikes numerous, terminal.* ††† *Stem leafy.*

S. ATROVIRENS. *Muhl.* Stem 3 angled; leaves lanceolate, keeled; panicle proliferous; spikelets glomerate.
Fl. Beginning of July. *Fr. mat.* Middle of August.
Hab. Swamps, and wet places: South of Barren ridge: frequent. 3 to 4 feet high.

26. RHYNCHOSPORA. *Nutt. Gen.* 49.

[Gr. *Rhynchos*, a beak, and *Spora*, seed: descriptive of the generic character.]

CAL. Scales collected into a spike. SEED beaked with the persistent *style*, & beset with bristles at the base.

R. GLOMERATA. *Ph.* Spikes corymbose-fasciculate, distant, by pairs; stem obtusely 3 angled; leaves linear.
Synon. Schœnus glomeratus. *Muhl.* and *Willd.* *Vulgo*—Brown Bog-rush.
Fl. Last of June, and after. *Fr. mat.* Beginning of August, and after.
Hab. Swampy meadows: frequent. About 2 feet high: glumes chesnut brown.

Obs. Mr. Le Conte, of Georgia, stated to me that this was undoubtedly the R. *fascicularis* of the southern Botanists. Perhaps they are really not distinct.

27. CYPERUS. *Nutt. Gen.* 52.

[An ancient Greek name, of uncertain etymology.]

CAL. Scales imbricated in two rows, in compressed spikelets. *Style* deciduous.

C. FLAVESCENS. *Muhl.* Stem 3 angled; involucre 3 leaved; umbels compound; spikelets crowded, lanceolate.
Vulgo—Yellow cyperus. Galingale.
Fl. Middle of August. *Fr. mat.* Middle of September.
Hab. Moist, low grounds: common. 6 to 9 inches high: glumes fuscous.

Obs. The glumes, in my specimens, are not remarkably *acute*. See *Elliott*.

C. STRIGOSUS. *Ell.* Spikes oblong, loose; spikelets subulate, expanding; involucre very long.
Vulgo—Bristle-spiked Galingale.
Fl. Beginning of August. *Fr. mat.* Middle of September.
Hab. Meadows, and low grounds: frequent. 1 to 2 feet high.

28. DULICHIUM. *Nutt. Gen.* 53.

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CAL. scales subulate, distichally sheathing. *Style* long, bifid. *Involucellate setæ* long, retrorsely scabrous.

D. SPATHACEUM. *Ell.* Stem round; leaves pointing in 3 directions; spikelets in axillary racemes.
Synon. Cyperus spathaceus. *Muhl.* Scirpus spathaceus. *Mx.* *Vulgo*—Sheathed Galingale.
Fl. Middle of July, and after. *Fr. mat.* Middle of September.
Hab. Swamps, and low grounds: frequent. 1 to 2 feet high.

29. TRICHOPHORUM. *Nutt. Gen.* 54.

[Gr. *Thrix, trichos*, hair, and *Phero*, to bear; the seeds being surrounded with long hairs.]

CAL. scales imbricated in sub-ovate spikelets. SEED beset with *hairs*, mostly 6, long, slightly curled.

T. CYPERINUM. *Ell.* Stem obtusely 3 angled, leafy; panicle supradecompound, somewhat pendulous.
Synon. Scirpus eriophorum. *Mx.* Eriophorum cyperinum. *Willd.* *Vulgo*—Brown Cotton-grass.
Fl. Middle of July. *Fr. mat.* Beginning of September.
Hab. Swamps, and wet places: frequent. 3 to 5 feet high.

Obs. This genus, if it really deserve the distinction, seems to be the connecting link between Scirpus and Eriophorum; but, if rejected, I should incline, with Willdenow, to place it among the species of Eriophorum.

30. ERIOPHORUM. *Nutt. Gen.* 55.

[Gr. *Erion*, wool, and *Phero*, to bear; the seeds being girted with tufts of long wool.]

CAL. scales imbricated on all sides. SEED in a long, dense, woolly involucrum.

E. ANGUSTIFOLIUM. *Muhl.* Stem 3 angled, leafy; leaves 3 sided, channelled; spikelets briefly pedunculate.
Vulgo—Cotton-grass.
Fl. Latter end of May. *Fr. mat.* Middle of August.
Hab. Wet meadow grounds: Hayes' bridge, on the Street road: rare. 1 to 2 feet high.

Obs. Remarkable for its white, woolly heads, when in seed. In my specimens the culms are distinctly *trigonous*. See *Pursh*, and *Bart. Fl. Philad.*

b. *Corolla chaffy.*

31. MARISCUS. *Nutt. Gen.* 51.

[Supposed from the Lat. *Mare*, the sea; near which some species naturally grow.]

CAL. 2 valved; 3, to 6 or 8 flowered. COR. 1 valved. *Style* trifid. *Spikelets* aggregated in heads.

M. GLOMERATUS? *Bart. Fl. Phil.* Stem triquetrous; head terminal; spikelets terete; involucre 3 or 4 leaved.
Synon. M. umbellatus. *Ph?* Scirpus cyperiformis. *Muhl.* & S. lupulinus. *Sprengel. secund. Baldwin.*
Fl. Beginning of August. *Fr. mat.*
Hab. Sterile fields: Barrens: frequent. 6 to 12 inches high.

Obs. Mr. Schweinitz says he always considered this to be the *Cyperus kyllingæoides*, of Pursh: and the opinions of two such accurate botanical observers, as he and Dr. Baldwin, induce me to believe that all these names are intended for the same plant.

ORDER, DIGYNIA.

GRASSES.

A. HERMAPHRODITE. a. *Calyx* 1 *flowered.* † *Flowers scattered.*

32. MUHLENBERGIA. *Nutt. Gen.* 64.

[In honor of the late *Rev. Henry Muhlenberg, D. D.* of Lancaster, Penn.; one of the most accomplished Botanists our country has produced.]

CAL. 2 valved, unequal, very minute. COR. 2 valved, hairy at base, exterior valve awned at the apex.

M. DIFFUSA. *Ell.* Stem decumbent; leaves linear; panicle slender, appressed; awn as long as the glume.
Synon. Dilepyrum minutiflorum. *Mx.** *Vulgo*—Drop-seed grass.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of August.
Hab. Woodlands, and pastures: frequent. 12 to 18 inches high.

M ERECTA. *Ell.* Stem erect; leaves lanceolate; raceme terminal; awn twice as long as the glume.
Synon. M. aristata. *Persoon.* Dilepyrum aristosum. *Mx.*
Fl. Beginning of July. *Fr. mat.* Beginning of August.
Hab. Woodlands, near the Brandywine: not so common as the other. 2 to 3 feet high.

33. TRICHODIUM. *Nutt. Gen.* 65.

[Gr. *Thrix, trichos*, hair, and *Eidos*, form; in reference to its hairlike inflorescence.]

CAL. 2 valved, equal, acute. COR. 1 valved, awnless, shorter than the calyx. *Panicles* capillary.

T. SCABRUM? *Muhl.* Stem decumbent, branches erect; sheath smooth; panicle oblong, lax; flowers racemose.
Synon. T. decumbens. *Mx.* T. perennans. *Walt. in Ell.* Agrostis scabra. *Willd?*
Fl. Beginning of August, and after. *Fr. mat.*
Hab. Fields, and woodlands: frequent, 1 to 2 feet high.

Obs. I have no doubt that my specimen is the T. perennans, described by Elliott; and I think it is the T. scabrum, of Muhl. It is usually about a foot and a half high (*sesquipedalis*)—and not a "half foot," as it is inadvertently rendered, in this, and some other instances, in *Flor. Philad.* I am not certain that I have met with the T. laxiflorum, of Michaux.

34. LEERSIA. *Nutt. Gen.* 66.

[In honor of *John Daniel Leers*; a German Botanist.]

CAL. 0. COR. 2 valved, closed; valves compressed, boat shaped, awnless.

* It is to be presumed that Michaux gave the above name to this plant without the knowledge that it had been formally dedicated to *Dr. Muhlenberg*, by Schreber. Certain it is, however, that Schreber's edition of the Genera Plantarum had been published at least a dozen years before Michaux's Flora appeared; and yet the name of Muhlenbergia is not noticed, even as a *Synonym.* The editor (Michaux the younger) merely remarks, in his preface, that he has *heard* some of the plants, enumerated in the Flora Boreali-Americana, had recently been given to the public under different names. A like injustice occurs in the same work, in relation to our worthy countryman, *Marshall*; in the appropriation of the genus MARSHALLIA to Dr. Persoon. But Persoon had in the mean time been complimented with another family of plants which, it seems, he preferred: and so, when he published his Synopsis, instead of restoring our Marshallia to its rightful owner, he reiterated the offence in a still more glaring manner, by transferring the genus to a German of the name of Trattinick—notwithstanding *mein herr Trattinick* had already been provided for, by Willdenow! It has been too much the practice, in Europe, to evince such disrespect towards scientific Americans: but it is gratifying to perceive a rising disposition in our Country to resist, and to rectify such proceedings,—and that even the Literati of the old world have at last vouchsafed to recognize some of our claims to justice.

L. VIRGINICA. *Ell.* Panicle lax, branches sparse; keel of the glumes sparingly ciliate.
Vulgo—White grass.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands, and moist places: Wollerton's woods: frequent. 1½ to 2 feet high.

L. ORYZOIDES. Panicle diffuse, large; leaves lanceolate; keel of the glumes conspicuously ciliate.
Vulgo—Cut grass. Wild Rice.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Sluggish rivulets, and wet places: frequent. 3 to 5 feet high.

Obs. This is a remarkably rough grass; somewhat resembling *rice* in its habit, as the specific name imports.

35. AGROSTIS. *Nutt. Gen.* 68.

[Gr. *Agros*, a field; being eminently an occupant of fields and pastures.]

CAL. 2 valved, valves acute. COR. 2 valved. *Stigmas* longitudinally hispid, or plumose.

§ 1. *Awned.*

A. STRICTA. *Muhl.* Panicle long, upright; awn at the base of the petal, twisted, longer than the flower.
Fl. Middle of May. *Fr. mat.*
Hab. Sterile spots: Barrens, at R. Strode's: frequent. About a foot high.

§ 2. *Without awns.*

A. VULGARIS. *Muhl.* Panicle long, finally diffuse, purplish; branchlets scabrous.
Vulgo—Herd's grass. Red top.
Fl. Latter end of June. *Fr. mat.* Latter end of July.
Hab. Fields and pastures; Patton's fields; frequent. 1 to 3 feet high.

A. ALBA. *Muhl.* Stem geniculate, assurgent; panicle lax: ligula white, 4 parted.
Vulgo—Herd's grass.
Fl. Latter end of June. *Fr. mat.* Latter end of July.
Hab. Fields, and low meadow grounds: frequent. 1 to 2 feet high.

Obs. Both this and the foregoing vary considerably in appearance, especially in the color of the panicles; and I think are confounded, by our farmers, under the common names of Herd's grass, and Red top. They have been cultivated occasionally, but are not much esteemed; except in swampy grounds, with a view to render them firm. This species is said to afford good materials for the manufacture of imitation *Leghorn bonnets*.

A. LATERIFLORA. *Mr.* Panicles terminal and lateral, compact; glumes all acuminate; ligula lacerate, obtuse.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands; and borders of fields: frequent. 1 to 2 feet high.

Obs. This seems to be the A. *mexicana*, of Muhlenberg.

A. VIRGINICA. *Muhl.* Panicle spike-form; leaves subulate, involute, rigid; mouth of the sheaths pilose.
Synon. A. pungens. *Ph.*
Fl. Middle of August. *Fr. mat.* Middle of September.
Hab. Dry, sterile hills: near the Grove tavern: frequent. About a foot high.

36. CALAMAGROSTIS. *Nutt. Gen.* 70.

[Compounded of *Calamus*, a reed, and *Agrostis*; embracing plants allied to those.]

CAL. 2 valved, acuminate. COR. 2 valved, with a hairy, or woolly involucellum at base.

C. CINNOIDES. *Bart. Fl. Phil.* Panicle oblong, appressed; valve of the corolla awned on the back.
Synon. C. canadensis. *Nutt.* Arundo cinnoides. *Muhl.* A. canadensis? *Mr.* *Vulgo*—Reed-grass.
Fl. Beginning of August. *Fr. mat.*
Hab. Borders of rivulets, on the Barrens: rather scarce. 2 to 3 feet high.

Obs. Compare this with the *Agrostis glaucа*, of Muhlenberg. I am strongly inclined to the opinion that they are really not distinct.

37. ARISTIDA. *Nutt. Gen.* 85.

[Lat. *Arista*, an awn, or beard: characteristic of the genus.]

CAL 2. valved. COR. 2 valved; interior valve very small; exterior with 3 terminal awns.

A. DICHOTOMA. *Ell.* Stem setaceous erect, branching; lateral awns short, middle one contorted.
Vulgo—Poverty-grass. Beard-grass.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Sterile, sandy banks, and roadsides: common. 6 to 18 inches high.

Obs. The name, *dichotoma*, as Mr. Elliott suggests, is not strictly appropriate.

†† *Flowers in spikes.*

☞ For PHLEUM, or *Timothy*, see Appendix of cultivated plants.

38. DIGITARIA. *Nutt. Gen.* 82.

[Lat. *Digitus*, a finger; the spikes being digitate, or finger like.]

CAL. 2 or 3 valved, unequal. COR. 2 valved, oblong-ovate, terete, awnless. *Styles* long.

D. SANGUINALIS. *Ell.* Spikes expanding; spikelets 2 flowered, one sessile; stem decumbent.
Synon. Panicum sanguinale. *Willd.* *Vulgo*—Crab-grass. Finger-grass:
Fl. Latter end of July. *Fr. mat.* Middle of September, and after.
Hab. Fields, roadsides, &c. common. 12 to 18 inches long; of a purple color.

D. FILIFORMIS. *Ell.* Spikes erect, filiform; spikelets 3 flowered, all pedicellate; stem erect.
Synon. Panicum filiforme. *Willd.*
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Sandy banks, and roadsides: frequent. 1, to 2 and 3 feet high; slender.

39. PASPALUM. *Nutt. Gen.* 84.

[*Paspalos*, an ancient Gr. name for millet; which this plant resembles, in its seeds.]

CAL. 2 valved, equal, orbicular. COR. 2 valved, same size and figure. *Stigmas* plumose.

P. PUBESCENS. *Muhl.* Leaves and sheaths villous; spike mostly solitary, terminal, on a long peduncle.
Synon. P. setaceum. *Mx. Ell. Ph.* &c.
Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Fields, roadsides, &c. common. 1 to 2 feet high; slender.

Obs. I incline to prefer Muhlenberg's specific name, as most appropriate.

P. LÆVE. *Ph.* Glabrous; spikes several, 2 to 6, alternate; sheaths compressed; ligula ciliate.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Grassy banks, along the Brandywine: frequent. 2 to 3 feet high.

Obs. Dr. Baldwin thought this was the P. *virgatum*, of Walter. The description, however, of the P. læve, as given in Pursh, fits my specimen exactly.

b. *Calyx* 2 *valved*, 2 *or* 3 *flowered: flowers scattered.*

40. TRISETUM. *Nutt. Gen.* 89.

[A name literally meaning *three bristles*, or awns; characteristic of the genus.]

CAL. acuminate, and carinate. COR. outer valve setaceously bifid; with 1 longer straight dorsal awn.

T. PRATENSE. *Ph.* Panicle somewhat contracted; glumes shining; sheaths long, striate, smooth.
Synon. Avena flavescens. *Willd.* *Vulgo*—Three awned Oat-grass.
Fl. Beginning of June. *Fr. mat.* Middle of July.
Hab. Low meadow grounds; near Jos. Taylor's mill dam: rather scarce. About 2 feet high.

Obs. Although I have followed Mr. Nuttall, in retaining this genus, I cannot help feeling the force of Dr. Smith's doubts on the subject. (See *Rees' Cyclop. art.* TRISETUM.) The awns, so called, which terminate the outer valve of the corolla, scarcely deserve that name: and the dorsal awn, in my specimens, appears to be slightly *contorted*. To say the least, the generic character rests on a slender foundation.

41. AIRA. *Nutt. Gen.* 90.

[An ancient Greek name; etymology obscure.]

CAL. shining. COR. 2 valved, awnless, or awned from the base.

A. PALLENS. *Muhl.* Panicle contracted, slender, branches 4 or 5; leaves linear-lanceolate; ligula lacerate.
Synon. Avena palustris? *Mx. Ph. Nutt.* &c. *Vulgo*—Hair-grass.
Fl. Last of May. *Fr. mat.*
Hab. Woodlands: Patton's woods: rare. A very slender grass, about 2 feet high.

Obs. My specimens are entirely *awnless*; as remarked by Dr. Muhlenberg to be the case with those which grow in woodlands.

A. CESPITOSA. *Muhl.* Panicle finally diffuse, pyramidal; leaves setaceous, nerved, scabrous.
Fl. Latter end of May. *Fr. mat.*
Hab. Sterile, moist places: Barrens, north of E. Worthington's: frequent. 2 to 3 feet high.

Obs. A firm, wiry grass, growing in a kind of *tussock*, or turf,—as the specific name imports.

A. ARISTULATA. *Tor.* Leaves subulate; calyx short; outer corolla glume truncate, tricuspidate.
Synon. A. purpurea. *Muhl.* Uralepsis aristulata. *Nutt.*
Fl. Beginning of June. *Fr. mat.*
Hab. Low meadow grounds: Jos. Taylor's meadow: frequent. 1 to 2 feet high.

c. *Calyx* 2 *valved, many-flowered.* † *Flowers in scattered Spikelets.*

42. POA. *Nutt. Gen.* 96.

[GR. *Poa*, herbage, or pasture; a name given, by way of eminence, to this valuable family of grasses.]

COR. 2 valved; valves somewhat acute; margins scariose. *Spikelets* ovate, awnless.

P. PRATENSIS, *Ph.* Panicle spreading; spikelets 4 flowered; glumes 5 nerved; ligula short, obtuse.
Vulgo—Spear-grass. Smooth stalked Meadow-grass.
Fl. Beginning of June. *Fr. mat.* Middle of July.
Hab. Fields, and pasture lots, about West Chester: frequent. 1 to 2 feet high.

Obs. This seems to be nearly allied to P. *viridis*. It is believed to be a naturalized foreigner; and affords a valuable pasture.

P. VIRIDIS. *Muhl.* Spikelets acuminate; glumes compressed, 3 nerved; leaves long, linear, abruptly acute.
Vulgo—Green-grass. Green Meadow-grass.
Fl. Last of May, and after. *Fr. mat.* Latter end of June, and after.
Hab. Meadows; borders of rich fields, and woodlands: common. 2 to 3 feet high.

Obs. This is esteemed by our farmers as among the best species of pasture. It delights in strong soils, especially those which are calcareous; and, although rarely propagated by art, with us, it naturally obtains in our rich fields, when they are not too frequently broken up by culture. This grass has also, latterly, acquired considerable importance, by its culms affording the material for the manufacture of *imitation Leghorn hats*, and *bonnets*.

P. NEMORALIS. *Ph.* Panicle, & leaves attenuate; spikelets about 3 flowered: branches slender, verticillate.
Fl. Middle of June. *Fr. mat.*
Hab. Woodlands; T. Gibbons's woods, along the Brandywine: somewhat rare. 12 to 18 inches high.

Obs. A weak stemmed, straggling, or decumbent grass, of a bright yellowish-green color. It is well described in *Smith's Flora Britannica*, with the exception of "*stipula brevissima erenata.*" In my specimens, the stipula, or ligula, is quite conspicuous, intire, and acute.

P. ANNUA. *Ell.* Stems procumbent, compressed, leafy; panicle divaricate; spikelets obtuse, about 5 flowered.
Fl. Middle of April, till October. *Fr. mat.* June, and after.
Hab. Gardens, fields, and woodlands: common. 3 to 8 inches long. Introduced.

P. COMPRESSA. *Muhl.* Panicle condensed, somewhat secund: stem ascending, much compressed.
Vulgo—Blue-grass. Wire-grass.
Fl. Middle of June, and after. *Fr. mat.* Latter end of July.
Hab. Fields, roadsides, &c. common. About 1 foot high.

Obs. This well known grass affords a good food for cattle, but is not so much esteemed as the P. *viridis*; and is sometimes rather troublesome, in the rotation of crops, by its tenacity of life.

P. NERVATA *Muhl.* Stem round, striate; panicle branched; leaves lanceolate; corolla valves nerved.
Synon. P. striata. *Mx.*
Fl. Middle of June. *Fr. mat.* Last of July.
Hab. Low wet places: below the Bath: not common. About 3 feet high.

Obs. Rather a coarse, harsh grass; though Dr. Muhlenberg says "*bonum pabulum.*"

P. CUSPIDATA. *B. Fl. Phil.* Stem leaves short, erect, pointed; spikelets crowded at the ends of the branches.
Synon. P. pungens. *Nutt.* P. autumnalis. *Ell.* P. flexuosa? *Muhl.*
Fl. Latter end of April. *Fr. mat.* Middle of May.
Hab. Woodlands: along the Brandywine, abundant. 12 to 18 inches high.

P. CAPILLARIS. *Muhl.* Stem much branched; panicle loose, capillary, spreading; leaves and sheaths nerved.
Fl. Middle of August. *Fr. mat.* Middle of September.
Hab. Light, sandy soils: near the Foot tavern: frequent. 6 to 18 inches high.

Obs. A variable species, as Dr. Muhlenberg remarks. In my small specimens, the spikelets are mostly 3 flowered; and in the large ones 5 flowered. In none of them are the "leaves hairy."

P. HIRSUTA. *Mx.* Panicle expanded; spikelets on long pedicels, 5 to 7 flowered, leaves long; sheaths hirsute.
Fl. Middle of August. *Fr. mat.* Latter end of September.
Hab. Dry, sandy grounds: roadsides, &c. frequent. 1 to 2 feet high.

Obs. A showy, purple-panicled grass, of no value; having, as Michaux observes, much of the habit of Panicum capillare.

P. PILOSA. *Muhl.* Stem oblique; spikelets linear, 8 to 10 flowered; axils, and throat of the sheaths, pilose.
Synon. P. pectinacea. *Mx.* "Rachi deflorata valvulis flosculorum interioribus persistentibus *pectinata.*"
Fl. Latter end of July. *Fr. mat.* Middle of August.
Hab. Uplands, and roadsides: near the Friends M. H. West Chester: frequent. 4 to 9 inches long.

P. OBTUSA. *Muhl.* Stem erect, striate; panicle dense; spikelets crowded, 3 to 5 flowered; glumes *obtuse?*
Fl. Beginning of June. *Fr. mat.*
Hab. Grassy banks: Race bank at Milltown: frequent. 12 to 20 inches high.

Obs. The name, *obtusa*, does not appear to be happily selected.

43. BRIZA. *Gen. Pl.* 115.

[Gr. *Brizo*, to nod; in reference to the nodding, or waving spikelets.]

Spikelets distichous. COR. valves ventricose, cordate, obtuse; interior valve minute.

B. ERAGROSTIS. *Muhl.* Stem decumbent, geniculate; spikelets ovate-lanceolate, pedicellate.
Synon. Poa megastachya. *Nutt.* *Vulgo*—Quake-grass.
Fl. Beginning of August. *Fr. mat.* Last of September.
Hab. Gardens, roadsides, &c. frequent. 12 to 18 inches in length.

Obs. A foreigner? Spikelets of a leaden, or blueish green color; as Dr. Barton has well remarked.

44. WINDSORIA. *Nutt. Gen.* 99.

[Dedicated by Mr. Nuttall to his friend *John Windsor*; an English Botanist.]

CAL. valves keeled, cuspidate. COR. dorsal valve 5 toothed. SEED calciform, corrugate.

W. POÆFORMIS. *Nutt.* Stem erect; panicle large, expanding; spikelets oblong, 5 flowered.
Synon. Poa sesleroides. *Mx.* & *Muhl.* Poa quinquefida. *Ph.* & *Ell.* *Vulgo*—Red top.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Hilly old fields, and roadsides: Barrens: frequent. 3 to 5 feet high: panicle purple.

Obs. Pursh speaks of this grass as being very valuable, and productive: but its culms appear to me to be too much like those of *Andropogon* (with which it associates,) to be of much value.

45. DANTHONIA. *Nutt. Gen.* 100.

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CAL. valves as long as the spikelet. COR. outer valve setaceously bifid, with a central awn, contorted at base.

D. SPICATA. *Nutt.* Flowers racemose; spikelets alternate, pedunculate, 6 or 7 flowered; leaves subulate.
Synon. Avena spicata. *Willd. Muhl.* & *Ph.* A. glumosa. *Mx?* *Vulgo*—Oat-grass. Wild-oats.
Fl. Middle of June. *Fr. mat.* Beginning of July.
Hab. Dry, sandy banks; woodlands and roadsides: frequent. 1 to 2 feet high.

46. FESTUCA. *Nutt. Gen.* 101.

[A Latin name for the shoot, or stalk of a tree, or herb; applied to this genus.]

Spikelets oblong, distichous; glumes acuminate. COR. outer valve entire, sometimes awned.

F. TENELLA. *Ell.* Panicle simple, rather secund; spikelets 6 to 8 flowered, awned; leaves linear-setaceous.
Synon. F. bromoides. *Mx. Smith, Flor. Brit?* *Vulgo*—Barren Fescue-grass.
Fl. Last of May, and after. *Fr. mat.* Latter end of June.
Hab. Dry woodlands: Parker's woods; Barrens: frequent. A slender, brown grass: 6 to 12 inches high.

F. ELATIOR. *Muhl.* Panicle branched; spikelets ovate-lanceolate, acute, 4 to 8 flowered, awnless, glabrous.
Vulgo—Tall Fescue-grass.
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab. Fields, and meadows: common. 2 to 3 feet high.

Obs. This grass, which is believed to be a foreigner, affords excellent food for cattle; and might, perhaps, be cultivated to advantage—though it is alleged, (See *Withering,*) that "in a cultivated state, it is nearly incapable of producing perfect seeds;" and is therefore suspected of being a hybrid.

F. FLUITANS. *Muhl.* Panicle long, loose; spikelets appressed; outer glumes awnless, nerved, subcrenate.
Vulgo—River Fescue-grass.
Fl. Beginning of June. *Fr mat.* Last of June.
Hab. Ponds, and wet places: Brandywine; Dungeon bottom: frequent. 4 to 5 feet high.

F. NUTANS. *Muhl.* Panicle diffuse, slender; lower branches in pairs, upper ones single; spikelets awnless.
Fl. Beginning of June. *Fr. mat.* Last of June. [3 to 5 flowered.
Hab. Woodlands, along Brandywine: not very common. About 2 feet high.

47. BROMUS. *Nutt. Gen.* 102.

[Gr. *Broma*, food; an ancient name of a species of wild oats, applied to this genus.]

Spikelets oblong, distichous, tumid. COR. outer valve bifid, awned below the apex; inner reflexed, ciliate.

B. SECALINUS. *Muhl.* Panicle nodding; spikelets ovate, 8 to 10 flowered; awns, when present, flexuose.
Vulgo—Cheat. Chess. Rye Brome-grass. Drank.
Fl. Middle of June. *Fr. mat.* Beginning of July.
Hab. Wheat, and Rye fields; pastures, &c. frequent. 3 to 4 feet high.

Obs. This foreign grass is an unwelcome intruder among our winter grain. Some few of our farmers still entertain the old, absurd notion, brought hither by our ancestors, concerning the *transformation of plants*; and contend that this grass is, in reality, nothing but corrupt, or *degenerate wheat*—the change being effected, as they allege, by unfavorable seasons, or soils; excessive portions of certain manures; or being closely eaten down by cattle; and other accidental causes. It is a curious circumstance, in the history of this vulgar error, that in former times, the benighted peasantry of Europe imagined Wheat was converted into Cheat, in poor soils, by *regular gradations:* that the *first* change was into *Rye*, then from Rye to *Barley*, from Barley to *Lolium*, and from Lolium to *Bromus*, or Cheat. They even thought it descended one step lower, by passing from Bromus to *Avena*, or oats! It was also supposed, that by the agency of a fertile soil it could be brought gradually back again to its pristine state. In *this Country*, however, the disciples of the doctrine have spiritedly abridged it, by discarding all those intermediate stages of transmutation, as mere surplusage! They insist that the change, from wheat to bromus, is effected directly and *at once*. So prevalent was this strange conceit prior to the time of Linnæus, that a serious Essay was written under the auspices of that great man, and published in the fifth volume of the *Amœnitates Academicæ*, for the express purpose of exploding the absurdity. At the present day, the prejudice is confined almost exclusively to the illiterate, and blindly credulous; who are exceedingly prone to adopt opinions, in such matters, without due examination,—and to maintain them with an obstinacy admirably proportioned to the lack of rational evidence.

B. CILIATUS. *Muhl.* Spikelets linear-lanceolate, 5 to 10 flowered; glumes ciliate, and hirsute; awns straight.
B. canadensis. *Mx?* *Vulgo*—Fringed Brome-grass.
Fl. Latter end of June. *Fr. mat.* Middle of July.
Hab. Woodlands; near the Bath: frequent. About 3 feet high.

B. PUBESCENS? *Muhl.* Spikelets oval-lanceolate, 8 to 10 flowered; glumes pubescent, scariose at margin.
Fl. Middle of June. *Fr. mat.* Middle of July.
Hab. Woodlands, and low grounds along Brandywine: frequent. 3 to 4 feet high.

†† *Flowers in Spikes.*

☞ For DACTYLIS, or *Orchard-grass*, see Appendix of cultivated plants.

48. LOLIUM. *Nutt. Gen.* 122.

[An ancient Latin name, used by Virgil, &c. Boerhaave says, "Lolium vocatur quasi *dolion*, (Gr.) *adulterinum*, quia hæc planta dicitur nasci ex Hordeo vel Tritico corrupto."]

CAL. 1 valved, subulate, fixed to the rachis. *Spike* simple; *spikelets* distichously imbricated.

L. PERENNE. *Muhl.* Spike awnless; spikelets alternate, longer than the calyx: terminal calyx 2 valved.
Vulgo—Ray-grass. Rye-grass. Darnel.
Hab. Meadows, and grass lots: Job Darlington's: not common. 1 to 2 feet high.

Obs. This grass affords a tolerably good pasture; and makes a handsome sward for yards and lawns. Though cultivated to a considerable extent, in Europe, it has been, as yet, but little attended to in this country; and not at all, I believe, in this vicinity. *Timothy* and *Orchard-grass* seem calculated to command a preference, under our mode of farming.

49. ELEUSINE. *Nutt. Gen.* 107.

[From *Eleusis*, where Ceres, the goddess of Harvests, was worshipped: A far-fetched name.]

CAL. 2. valved, carinate; dorsal valve larger. *Spikes* digitate: *spikelets* lateral, awnless.

E. INDICA. *Ell.* Spikes straight, linear; spikelets lanceolate, 4 to 6 flowered; stem compressed, decumbent.
Synon. Cynosurus indicus. *Willd.* *Vulgo*—Dog's-tail-grass. Wire-grass. Crab-grass.
Fl. Beginning of August. *Fr. mat.* Middle of September.
Hab. Streets, lanes, and roadsides: common. 6 to 12 inches long.

Obs. This spreading grass seems to delight in growing where it can be trodden on: and makes a good carpeting in muddy times, for lanes, woodyards, and foot paths. Cattle and hogs are fond of it; and Mr. Elliott speaks highly of it, for hay. Is it a native?

50. ELYMUS. *Nutt. Gen.* 118.

[An ancient Greek name, of obscure derivation.]

CAL. lateral, 2 valved, setiform; in pairs, like a 4 leafed involucre. COR. 2 valved; outer valve awned.

E. VIRGINICUS. *Muhl.* Spike erect; spikelets 3 flowered, awned, by pairs; calyx as long as the spikelets.
Fl. Middle of July. *Fr. mat.* Beginning of September.
Hab. Moist situations; Forks of Brandywine: frequent. 3 to 4 feet high.

Obs. The spikes of this grass resemble heads of Barley, at a little distance. The spikelets, in my specimens, are *hispid*, and not glabrous, as described in *Ell. Ph.* &c. In all other respects, it agrees perfectly.

E. HYSTRIX. *Muhl.* Spikelets in pairs, divergent, glabrous, 3 flowered; involucre 0, or 2 leaved; awns long.
Fl. Beginning of July. *Fr. mat.* Last of August.
Hab. Rich, moist woodlands: Bath; Dungeon bottom: frequent. 2 to 4 feet high.

Obs. The bristly spike of this remarkable species somewhat resembles an Apothecary's bottle-washer.

B. POLYGAMOUS. a. *Calyx* 1 *flowered.*

51. ANDROPOGON. *Nutt. Gen.* 88.

[Gr. literally *Man's beard*; from a fancied resemblance in the hairs of the involucres.]

Flowers in pairs: *Involucre*, a fasciculate villus. MALE, or NEUT. awnless, pedicellate.
HERMAPH. sessile. *Cal.* 2 valved, awnless. *Cor.* 2 or 3 valved; awned at base, or at summit.

§1. *Panicle terminal.*

A. AVENACEUS. *Bart. Fl. Phil.* Glabrous; panicle pyramidal-oblong; corolla ciliate; awn contorted.
Synon. A. ciliatus. *Ell.* A. nutans. *Muhl.* *Vulgo*—Wood-grass. Indian-grass.
Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Old, neglected fields: Barrens &c. common. 3 to 5 feet high.

§2. *Spikes conjugate, or fasciculate.*

A. SCOPARIUS. *Ell.* Leaves and sheaths pilose; spikes simple, pedunculate, by pairs, lateral and terminal.
Synon. A. purpurascens. *Muhl.* and *Willd.* *Vulgo*—Purple Wood-grass.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Sterile, sandy grounds: old fields &c. common. About 3 feet high.

A. MACROURUS. *Muhl.* Monandrous; spikes terminal, fastigiate: stem leaves crowded, subulate.
Synon. Cinna glomerata. *Walter.* *Vulgo*—Cluster flowered Wood-grass.
Fl. Beginning of September. *Fr. mat.* Beginning of October.
Hab. Sterile, wet meadows: Barrens; near the Paoli: not very common. 2 to 3 feet high.

A. FURCATUS. *Ell.* Spikes digitate, generally by fours; leaves lanceolate; sheaths glabrous.
Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Barren ridge: near the Bath, &c. frequent. About 3 feet high.

Obs. We have, perhaps, some other species which I have not been able clearly to ascertain. They are all known by the common names of *Wood-grass*, and *Indian-grass*; and are, by their presence, indicative of either a sterile soil, or bad farming—or both.

b. *Calyx* 2 *flowered.* † *Flowers mostly scattered.*

52. HOLCUS. *Nutt. Gen.* 93.

[An ancient Greek name: Etymology obscure.]

Flowers paniculate: MALE, pedicellate. *Cal.* 2 valved. *Cor.* 0, or 2 valved.
HERMAPH. sessile. *Cal.* 2 valved. *Cor.* smaller, 2 valved; outer valve awned below the apex.

H. LANATUS. *Bart. Fl. Phil.* Panicle contracted; glumes ciliate; leaves lanceolate, soft, woolly.
Vulgo—Feather-Grass. White Timothy. Salem-Grass.
Fl. Middle of June. *Fr. mat.* Latter end of July
Hab. Meadows, woodlands, and low grounds: frequent. 12 to 18 inches high.

Obs. The plant has a hoary appearance: the panicle often purple. It is believed to be a foreigner; and although Dr. Muhlenberg speaks of it as being good fodder, it is not highly esteemed, here.

53. PANICUM. *Nutt. Gen.* 79.

[Lat. *Panicula*, a mode of flowering; or *Panis*, bread; from the use made of some species.]

Flowers loosely or densely paniculate: MALE, or NEUT. sessile; valves unequal, often but 1, minute. HERMAPH. *Cal.* 2 valved; outer valve very small. *Cor.* 2 valved, cartilaginous, persistent.

§ 1. *Flowers loosely paniculate.*

P. CAPILLARE. *Mx.* Panicle capillary, much branched; flowers pedicellate; leaves and sheaths hirsute.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Dry, sandy grounds; pastures, cornfields, &c. common. 1 to 2 feet high.

Obs. In the fall of the year, the dry culms break off, and the *panicles* are rolled over the fields in great numbers, by the winds.

P. LATIFOLIUM. *Ell.* Lateral racemes simple; leaves ovate-lanceolate; sheaths hairy at throat.
Fl. Middle of June, and after. *Fr. mat.* Beginning of August and after.
Hab. Meadows, ditch banks, roadsides, &c. common. 9 to 18 inches high.

P. NERVOSUM. *Muhl.* Panicle-branches flexuose; glumes nerved; leaves lanceolate, ciliate at base.
Fl. Middle of June. *Fr. mat.* Latter end of July.
Hab. Dry hills, and woodlands: frequent. 1 to 2 feet high.

P. CILIATUM. *Ell.* Panicle few flowered; leaves short, lanceolate, and, with the sheaths, handsomely ciliate.
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab. Woodlands, &c. frequent. 8 to 15 inches high.

P. PAUCIFLORUM? *Ell.* Panicle few flowered; leaves narrow-lanceolate; sheaths short, bearded at throat.
Fl. Latter end of June. *Fr. mat.* Latter end of July.
Hab. Woodlands: Lovell's 80 acre woods: frequent. 12 to 18 inches high.

Obs. This is a very slender species, somewhat resembling P. ciliatum in habit; but much less hairy, with narrower leaves, and the sheaths scarcely half the length of the joints.

P. DICHOTOMUM. *Ell.* Stem dichotomous above; branches fasciculate; leaves linear-lanceolate, divaricate
Synon. P. ramulosum? *Mx.*
Fl. Middle of July. *Fr. mat.* Latter end of August.
Hab. Barren ridge, in the borders of the woods; abundant. 1 to 2, and 3 feet high.

Obs. This plant varies very much in size and appearance; and when large, is procumbent. I have no doubt it is the P. dichotomum of Ell. Pursh, and Muhl.—and probably the P. ramulosum of Mx.—though Mr. Elliott, I observe, supposes otherwise.

P. STRICTUM. *Ph.* Panicle solitary, short; glumes obovate, turgid; leaves crowded, erect, pungent.
Synon. P. setaceum. *Muhl.*
Fl. Latter end of July. *Fr. mat.* Latter end of August.
Hab. Sterile spots: R. Strodes; Barrens: frequent. 12 to 18 inches high.

P. PAUPERATUM. *Muhl.* Stem simple; upper leaf elongated; sheath pilose; calyx valves nerved.
Fl. Beginning of June. *Fr. mat.* Middle of July.
Hab. Barren ridge, North of E. Worthington's; abundant. About a foot high.

§ 2. *Flowers in dense panicles, racemes, or spikes.*

P. AGROSTOIDES. *Muhl.* Stem compressed; leaves lanceolate, keeled; panicles terminal and lateral.
Fl. Beginning of August. *Fr. mat.* Middle of September.
Hab. Moist, low grounds: Bath; Patton's low grounds: frequent. About 2 feet high.

Obs. Dr. Baldwin thought this would prove to be nothing more than a *variety* of P. *rostratum*; though, I confess, to me it seems pretty distinct.

P. ROSTRATUM. *Muhl.* Stem ancipital; leaves long; panicle erect; flowers racemose; glumes rostrate.
Synon. P. anceps. *Mx. Ell.* and *Ph.*
Fl. Beginning of August. *Fr. mat.* Beginning of September.
Hab. Fields, and meadows: common. 3 to 4 feet high.

P. CRUS GALLI. *Ph.* Spikes alternate, and by pairs; glumes hispid, awned; rachis 5 angled.
Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Wet, low grounds, and meadows; drains of Barnyards, &c. common. 2 to 5 feet high.

Obs. We have all the *varieties* noticed by Pursh. This is a coarse, rank grass, and very worthless. Indeed, none of the foregoing species are considered of any value, in an agricultural point of view.

☞ For P. MILIACEUM, or *Millet*, see appendix of cultivated plants.

Plate 1.

H. Fennell del.

Kneass sc

Atheropogon apludoides Mühl.

†† *Flowers in Spikes.*

54. PENNISETUM. *Nutt. Gen.* 80.

[Lat. *Penna*, a feather, and *Seta*, a bristle; the bristly involucre being plumose, in some species.]

Involucre of many bristles: Florets sessile. MALE, (rarely NEUT.) *Cor.* valves scariose.
HERMAPH. *Cal.* 2 valved, unequal. *Cor.* valves cartilaginous.

P. GLAUCUM. *B. Fl. Phil.* Spike terete; involucels bristly-fasciculate; corolla valves transversely rugose.
Synon. Panicum glaucum. *Mx. Muhl.* &c. *Vulgo*—Fox-tail-grass. Bottle-grass.
Fl. Middle of July, and after. *Fr. mat.* Middle of August, and after.
Hab. Stubble fields, meadows, orchards, &c. very common. 1½ to 3 feet high.

Obs. This well known grass is more abundant than welcome in our cultivated grounds; as cattle are not very fond of it. Poultry, however, feed upon the ripe seeds. Is it a native?—Dr. Smith (See *Cyclop. art.* PANICUM) decidedly objects to the grounds on which this genus is erected; and I am by no means sure that he is not correct.

55. ATHEROPOGON. *Nutt. Gen.* 110.

[Gr. *Ather*, or *Aither*, a bristle, or awn, and *Pogon*, beard; the beards being bristle-like.]

Spikelets alternate, in a raceme. *Cal.* 2 valved; inner setiform. NEUT. *Cor.* 1 valved, with 3 exserted awns.
HERMAPH. *Cor.* 2 valved; exterior tridentate; interior bidentate. *Seed* naked, oblong.

A. APLUDOIDES. *Muhl.* Spikelets numerous, reflexed, secund, each 4 to 10 glumes; leaves lanceolate.
Synon. Chloris curtipendula. *Mx.* Cynosurus secundus? *Ph. Suppl.*
Fl. Latter end of July. *Fr. mat.* Beginning of September.
Hab Barren ridge, north of E. Worthington's, abundant. 1 to 3 feet high.

Obs. This handsome and remarkable grass, is quite local and circumscribed in its habitat; being only to be seen on the most sterile parts of the Barren ridge, (in company with Talinum, Arenaria stricta, &c.) where it grows in great abundance. The anthers are of a beautiful cinnabar, or light vermillion-color; and are quite showy when the plant is in bloom. The accompanying plate, from a drawing by an ingenious, self-taught youth, will afford a tolerably correct idea of the habit of the plant; although the artist had not the advantage of a botanical eye. The florets composing each spikelet, are arranged in pairs on the under side of a flat, reflected rachis, which looks as if it might have been shaved down from the stalk: and the spikelets, (10 to 40 in number,) although their footstalks proceed from opposite sides of the stem, or common rachis, and appear at first in two ranks,—yet they are finally all turned to one side, making the raceme secund, or one ranked. Pursh, who did not see this grass, makes Michaux's Chloris curtipendula a distinct plant; as likewise does Willdenow. They are undoubtedly the same: and the Cynosurus secundus, of Pursh, is probably nothing else. Cattle are pretty fond of it whilst it is young; but it becomes rather hard and wiry, when old.

ORDER, TRIGYNIA.

56. MOLLUGO. *Nutt. Gen.* 125.

[Obscure; supposed to be from the Lat. *Mollis*, soft; because of its soft leaves.]

CAL. 5 leaved, colored inside. COR. 0. CAPS. 3 celled, 3 valved. SEEDS numerous, reniform

M. VERTICILLATA. *Ell.* Stem prostrate, branching; leaves verticillate, cuneiform; peduncles 1 flowered.
Vulgo—Carpet-weed. Indian Chickweed.
Fl. Middle of July, and after. *Fr. mat.* Beginning of August, and after.
Hab. Gardens, fields, &c. common. Branches 3, to 6 or 8 inches long, in every direction.

Obs. Some of the seeds are ripe before the plant has put forth all its flowers. I have observed it occasionally to be *Tetrandrous*, in gardens, and other rich soils.

57. QUERIA. *Nutt. Gen.* 234.

[In honor of *Don Jose Quer y Martinez*, a Spanish Botanist.]

CAL. 5 parted, connivent. COR. 0. *Stam.* 3, rarely 5. CAPS. utricular, not opening. SEED 1, sub-reniform

Q. CANADENSIS. *Bart. Fl. Phil.* Stem dichotomously branched; leaves cuneate-oblong, glabrous.
Synon. Anychia dichotoma. *Mx.* and *Ph.* A. canadensis. *Ell.* *Vulgo*—Forked Chickweed.
Fl. Middle of June, and after. *Fr. mat.* Beginning of August, and after.
Hab. Dry, hilly woodlands: common. 4 to 12 inches high.

Obs. I have met with some remarkable *varieties* of this plant: with very small leaves and large stipules.

58. LECHEA. *Nutt. Gen.* 126.

[In honor of *John Leche*; a Swedish Botanist.]

CAL. 3 leaved. COR. petals 3, linear. CAPS. 3 celled, 3 valved, with 3 inner valves. SEEDS 1 in each cell.

L. MAJOR. *Bart. Fl. Phil.* Stem erect, villous; leaves oval-lanceolate, mucronate, hairy; flowers clustered.
Synon. L. villosa. *Elliott.* *Vulgo*—Pin-weed.
Fl. Latter end of July. *Fr. mat.* Last of September.
Hab. Dry, sterile banks: Barrens, &c. frequent. 1 to 2 feet high; semi-frutescent: flowers brown.

L. MINOR. *Bart. Fl. Phil.* Stem assurgent; leaves linear-lanceolate, acute; flowers diffused, pedicellate.
Fl. Beginning of August. *Fr. mat.* Beginning of October.
Hab. Dry, sandy banks: borders of woodlands; Barrens: frequent. 12 to 18 inches high: flowers brown.

CLASS IV. TETRANDRIA.

ORDER, MONOGYNIA.

A. FLOWERS SUPERIOR. a. *Corolla monopetalous.*

59. CEPHALANTHUS. *Nutt. Gen.* 129.

[Gr. *Kephale*, a head, and *Anthos*, a flower; the flowers being collected in heads, or globes.]

CAL. 4 cleft, small, angular. COR. 4 cleft, tubular, slender. *Receptacle* globose, hairy.

C. OCCIDENTALIS. *Ell.* Stem jointed; branches opposite; leaves opposite or ternate, ovate-lanceolate, entire.
Vulgo—Button Bush. American Button-wood. Pond dog-wood.
Hab. Banks of creeks and rivulets: Brandywine, Pokopsin, &c. frequent. 3 to 8 feet high: flowers white.

Obs. This shrub is usually small, and slender; but there is one by a rivulet in the 80 acre woods, near Wm. Hawley's, which is about 10 feet high, and 21 inches in circumference, at the base. Mr. Elliott says the inner bark of the root is used as a remedy in obstinate coughs: and as it is moderately bitter, it may probably be useful in certain cases.

60. DIPSACUS. *Nutt. Gen.* 130.

[Fancifully derived from the Gr. *Dipsao*, to be thirsty; the stem leaves holding water at their junction.]

Flowers in an ovate head: *involucre* many-leaved. CAL. 1 leaved. COR. 4 lobed. *Recept.* chaffy; chaff rigid.

D. SYLVESTRIS. *Sm. Fl. Brit.* Aculeate; leaves opposite, connate; chaff straight, longer than the flowers.
Vulgo—Wild Teasel.
Fl. Latter end of July. *Fr. mat.* Beginning of September.
Hab. Brandywine; Jefferis' ford; Marshall's mill; Downingtown, &c. 2 to 4 feet high: flowers purple.

Obs. A foreigner: but becoming naturalized. I am informed by Dr. A. Baily that it was introduced into this neighborhood by the late Humphry Marshall.

61. GALIUM. *Nutt. Gen.* 131.

[Said to be from the Gr. *Gala*, milk; from its property of curdling that fluid.]

CAL. 4 toothed, small. COR. rotate, 4 cleft, (rarely 3 cleft, & then 3-androus.) *Germ* twin. SEEDS 2, roundish.

§ 1. *Fruit smooth.*

G. TINCTORIUM. *Ph.* Stems diffuse, smoothish; leaves linear, in 6's and 4's; peduncles 2 or 3 flowered.
Vulgo—Dyer's Goose-grass. Wild Madder.
Fl. Middle of June, and after. *Fr. mat.* Latter end of August.
Hab. Moist woodlands, and low grounds; Patton's: Bath, &c. frequent. 1 to 2 feet high; flowers white.

Obs. The ripe berries contain a purple juice; and Pursh informs us that the Indians use this plant, (but what part he does not say,) to dye their feathers, porcupine quills, and other ornaments, of a beautiful red.

G. ASPRELLUM. *Ph.* Stem retro-aculeate; leaves lanceolate, in 6's and 4's; flower-branches divaricate.
Fl. Middle of July, and after. *Fr. mat.* Middle of September.
Hab. Swampy thickets; frequent: often climbing over bushes, several feet; flowers white, small.

G. TRIFIDUM. *Ph.* Procumbent; leaves linear-oblanceolate, obtuse, in fives and fours; corolla mostly trifid.
Synon. G. Claytoni. *Mx.* *Vulgo*—Ladies' bed-straw.
Fl. Beginning of July. *Fr. mat.* Beginning of September.
Hab. Low grounds, and moist places: Bath; Barrens: frequent. 1 to 3 feet long: flowers white.

§2. *Fruit hispid.*

G. APARINE. *Ph.* Stems flaccid, retro-scabrous; leaves long, linear-oblanceolate, mucronate, mostly in 8's.
Vulgo—Common Cleavers, or Clivers. Goose-grass. Catch-weed. Robin-run-the-Hedge.
Fl. Middle of May, and after. *Fr. mat.* Latter end of July.
Hab. Fence-rows, and rich, shaded places; often extending 6 or 8 feet: flowers white.

G. PILOSUM. *Ell.* Stem roughish, erect, or assurgent; leaves in 4's, oval, ciliate; peduncles dichotomous.
Synon. G. puncticulosum. *Mx?*
Fl. Latter end of June, and after. *Fr. mat.* Last of August.
Hab. Dry, sterile banks, among bushes, &c. R. Strode's: 1½ to 2 feet high; flowers reddish brown.

G. LANCEOLATUM. *Tor. secund. Schw.* Stem erect, smooth; leaves in fours, ovate-lanceolate.
Fl. Last of June, and after. *Fr. mat.* Middle of September.
Hab. Woodlands: Patton's; frequent. 12 to 18 inches high; flowers brownish purple, sometimes whitish.

Obs. This approaches near to G. triflorum, of Mx. The leaves are finely ciliate at margin; but are pretty constantly in fours, and not mucronate. The whole plant smoothish and erect; the flower-branches mostly terminal, long, and divaricate.

G. CUSPIDATUM. *Ell.* Stem flaccid, smoothish; leaves in 6's, oblong-lanceolate, acuminate; peduncles trifid.
Fl. Middle of July, and after. *Fr. mat.* Last of September.
Hab. Woodlands, and moist, shaded grounds: Bath; Brandywine; frequent: flowers white.

G. BRACHIATUM. *Ph.* Stem roughish; leaves in 6's, lanceolate, acuminate; margins & ribs bristly-ciliate.
Fl. Latter end of July. *Fr. mat.* Last of September.
Hab. Woods, and meadows: Joseph Taylor's meadow, &c. frequent: flowers yellowish, or dirty white.

Obs. This approaches the foregoing; but is, perhaps, sufficiently distinct.

G. CIRCÆZANS. *Mx.* Stem erect, smooth; leaves in fours, ovate; peduncles divaricate; fruit nodding.
Synon. G. brachiatum. *Muhl.* not of *Pursh.*
Fl. Latter end of June. *Fr. mat.* Last of August.
Hab. Woodlands: Bath; Patton's, &c. frequent. 12 to 18 inches high: flowers purplish.

Obs. This species may be readily known by the fact, (first mentioned to me by Dr. Baldwin,) that the leaves, when chewed, are remarkably *sweet*,—resembling the taste of *liquorice root.*

62. SPERMACOCE. *Nutt. Gen.* 133.

[Gr. *Sperma*, seed, and *Akoke*, a sharp point; the fruit being beaked, or pointed.]

CAL. 4 toothed. COR. funnel-form, 4 cleft. CAPSULES 2, connate, each 2 horned.

S. DIODINA. *Ell.* Hirsute; leaves linear-lanceolate; stipules long-bristled, flowers opposite, axillary, sessile.
Vulgo—Button weed.
Fl. Middle of August, and after. *Fr. mat.* Latter end of September.
Hab. Dry, sandy banks: roadside, from Strode's mill to Brandywine. 4 to 12 inches high: branching.

Obs. This plant is very abundant along the *Street-road*, towards Londongrove; but rather scarce in this immediate vicinity, except along the road from Strode's Mill to Wistar's Bridge, where it is plentiful. The flowers, with us, are uniformly pale red; and not *white*, as Pursh has it. I have little doubt but it is the *S. hyssopifolia*, of Rees' Cyclopædia; as the Editor of that work seems inclined to suspect.

63. HOUSTONIA. *Nutt. Gen.* 136.

[In honor of Dr. *William Houstoun;* an English Botanist.]

CAL. 4 toothed. COR. funnel-form, 4 cleft. CAPS. 2 celled, half superior, opening transversely.

H. CÆRULEA. *Ph.* Stem erect, setaceous, dichotomous; radical leaves spathulate; peduncles long, 1 flowered.
Vulgo—Dwarf Pink. Bluets. Innocence.
Fl. Middle of April, till autumn. *Fr. mat.* Middle of June, and after.
Hab. Meadows, thin woods, and old fields: common. 2 to 4 inches high: flowers blue; sometimes white.

64. MITCHELLA. *Nutt. Gen.* 138.

[In honor of Dr. *John Mitchell*; a Botanist of Virginia.]

CAL. 4 toothed. COR. in pairs on the same germ, funnel-form, 4 parted. BERRY twin, 4 seeded.

M. REPENS. *Ell.* Stem prostrate; leaves opposite, petiolate, cordate-ovate; peduncles axillary, solitary.
Vulgo—Partridge-berry. Turkey-berry. Chequer-berry. Ground Ivy.
Fl. Middle of June. *Fr. mat.* Last of September.
Hab. Moist woodlands: Patton's and Matlack's woods, abundant. 6 to 12 inches long: flowers white.

Obs. This beautiful little evergreen often retains its red berries until the flowers of the succeeding year have appeared. It thrives well when removed with a sod; and makes a handsome covering for the earth, in pots, or boxes, containing green-house shrubbery.

b. *Corolla tetrapetalous; or none.*

65. LUDWIGIA. *Nutt. Gen.* 141.

[In honor of *Christian Gottlieb Ludwig*; a German Botanist.]

CAL. 4 parted, persistent. COR. 4 petalled, or 0. CAPS. 4 angled, 4 celled, many seeded.

L. MACROCARPA. *Mx.* Stem erect, branching; leaves alternate, lanceolate; flowers 4 petalled.
Synon. L. alternifolia. *Willd. Ell.* and *Muhl.* *Vulgo*—Bastard Loose-strife.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Swampy meadows, and along rivulets; frequent. 2 to 3 feet high: flowers yellow.

L. PALUSTRIS. *Ell.* Stem creeping; leaves opposite, ovate-lanceolate, tapering at base; flowers apetalous.
Synon. L. nitida. *Mx.* and *Ph.* Isnardia palustris. *Willd. Nutt. Muhl.* &c.
Fl. Beginning of July, and after. *Fr. mat.* Middle of September.
Hab. Low, muddy grounds, ditches, &c. frequent. 4 to 10 inches long: smooth and succulent.

Obs. I am satisfied that this plant is a true Ludwigia.

66. CORNUS. *Nutt. Gen.* 143.

[Lat. *Cornu*, horn; in allusion to the horny toughness of its wood.]

CAL. small, 4 toothed. COR. petals small, broader at the base. DRUPE containing a 2 celled *nut.*

§ 1. *Flowers involucrate: in Heads.*

C. FLORIDA. *Ell.* Arborescent; leaves ovate, acuminate, involucre large, obcordate; drupes ovate.
Vulgo—Dog-wood. Large flowered Cornel. Male Virginian Dog-wood.
Fl. Middle of May. *Fr. mat.* Last of September.
Hab. Woodlands; everywhere common. 10 to 20, and sometimes, though rarely, 30 or 40 feet high.

Obs. This well-known small tree, (so much admired, when in flower, for its showy white involucres,) possesses some valuable properties. The bark is an excellent tonic; approaching the Cinchona in efficacy. See Dr. *Walter's Inaugural Thesis*, 1803. *Philad.* The straight stems of the young trees afford hoop-poles for the coopers; and the slender, regularly-disposed branches, distaffs for spinsters. The wood is very firm, and is used by wood-choppers, for making wooden wedges. We might even quote classical authority for its fitness for warlike implements; as Virgil says "*bono bello* CORNUS"—though he certainly had reference to another, and probably totally distinct plant. Our observing Farmers say, that the proper time to plant *Indian corn.* (Zea mays) is when the involucres of the Dog-wood make their appearance. I have never seen the other American involucrate species (C. *canadensis,*) on this side of the Pokono mountain, in this state; and believe it is exclusively confined to such regions.

§ 2. *Flowers naked: in Cymes.*

C. SERICEA. *Ell.* Leaves oval, acuminate, silky beneath, with a russet pubescence on the ribs.
Synon. C. lanuginosa. *Mx.* C. sanguinea? *Marshall.* *Vulgo*—Red-rod. Red-willow. Swamp Dog-wood.
Fl. Middle of June. *Fr. mat.* Beginning of October.
Hab. Swamps, springheads, and rivulets: Brandywine: frequent. 5 to 8 feet high: flowers white.

Obs. This shrub also possesses tonic virtues. *See as above.* The young branches are of a handsome red color; and the ripe berries a bright blue.

C. ALTERNA. *Mar.* Leaves ovate, often obovate, acuminate, hoary beneath; cymes depressed, expanding.
Synon. C. alternifolia. *Ph. Ell.* &c. *Vulgo*—Alternate branched, or Female Virginian Dog-wood.
Fl. Latter end of May. *Fr. mat.* Last of July.
Hab. Fence-rows, and thickets: frequent. 10 to 15 feet high: flowers white: berries globose, dark blue.

Obs. The name *alternifolia*, latterly applied to this species, is by no means a happy one. Marshall's name, in reference to the branches, is perhaps better.

C. PANICULATA. *Ph.* Branches erect; leaves oval-lanceolate, acuminate, hoary beneath; cymes paniculate.
Synon. C. candidissima. *Marshall.* *Vulgo*—White Dog-wood. Swamp American Dog-wood.
Fl. Middle of June. *Fr. mat.* Middle of September.
Hab. Flat, moist grounds: Roadside, west of Strode's Mill: rare. 4, to 6 or 8 feet high: flowers white.

Obs. This appears to be the variety, marked *albida*, of Pursh. I have only met with it in the abovementioned place, a few rods west of Joseph Strode's Mill. The ripe berries are white, and globose.

2. FLOWERS INFERIOR. a. *Corolla monopetalous.*

67. PLANTAGO. *Nutt. Gen.* 145.

[Etymology obscure: *Boerhaave* suggests, "quia *plantis* pedum juxta vias conculcatur."]

Flowers on spiked scapes. CAL. 4 cleft. COR. 4 cleft. *Stam.* very long. CAPS. 2 celled, circumscissed.

Obolaria Virginica

P. MAJOR. *Ell.* Leaves ovate, smoothish; scape terete; spike long, with the flowers imbricated.
Vulgo—Common, or Great Plantain. Way-bread.
Fl. Beginning of June till autumn. *Fr. mat.* August, and after.
Hab. Moist, rich grounds; along foot paths, and about houses; very common. Scapes 6 to 18 inches high.

Obs. A naturalized foreigner. The scape frequently bears one or two leaves, near the spike of flowers, and is then flattened, or dilated. The leaves are often used for dressing blisters and other sores. It is said our native Indians call this plant "*the white man's foot*,"—from the circumstance of its delighting to grow in travelled pathways, and advancing into the country *pari passu* with the whites.

P. LANCEOLATA. *Ell.* Leaves lanceolate, hairy; spike cylindric, or subovate, naked; scape angled, hairy.
Vulgo—English Plantain. Ripple-grass. Ribwort. Buck-horn Plantain.
Fl. Middle of May, and after. *Fr. mat.* Beginning of July.
Hab. Meadows, fields, and grass lots: common. Scapes 1 to 2 feet high.

Obs. This species is also a naturalized foreigner. It is not much esteemed by the farmers of this vicinity —though in some neighborhoods it has been occasionally cultivated; and horses, horned cattle, and sheep are all fond of it. It has become so common, that it is difficult to procure the seed of red clover entirely clear of it; and it bids fair to prevail still more extensively.

P. VIRGINICA. *Ph.* Covered with whitish pubescence; leaves oval-oblanceolate; flowers rather remote.
Vulgo—White Plantain. Virginian Plantain.
Fl. Middle of May, and after. *Fr. mat.* Middle of June, and after.
Hab. Sterile old fields, and stony hills: frequent. Scapes 3 to 8 inches high.

68. ANDREWSIA. *Bart. Fl. Philad.* 82.

[Dedicated by Sprengel to Mr. *Andrews*, an English Florist; author of a work on Roses.]

CAL. 4 parted, appressed. COR. subcampanulate, 4 parted. *Stigma* thick, sub-bifid. CAPS. 1 celled, 2 valved.

A. PANICULATA. *Fl. Phil.* Stem somewhat branched: peduncles opposite; corolla the length of the calyx.
Synon. Bartonia paniculata. *Muhl.* Sagina virginica. *Willd.* Centaurella paniculata. *Mx. Nutt. & Ell.*
Fl. Beginning of August. *Fr. mat.*
Hab. Sterile fields, and woodlands; Barren ridge; Geo. Darlington's: rather scarce. 3 to 9 inches high.

Obs. I have adopted the above name, in the hope that it may prove more fortunate than its numerous predecessors; though, I confess, I always thought Muhlenberg's name, Bartonia, altogether unexceptionable, until it was superseded by the Bartonia of Nuttall and Pursh.

69. OBOLARIA. *Nutt. Gen.* 152.

[Gr. *Obolos*, a small Athenian coin; which the leaves of this plant are supposed to resemble.]

CAL. 0, but 2 bractes. COR. campanulate, 4 cleft; bearing a *Stamen* in each cleft. CAPS. ovate, 1 celled.

O. VIRGINICA. *Nutt.* Leaves opposite, sessile, cuneiform, and sub-rhomboid; flowers axillary, sessile.
Vulgo—Penny-wort. Money-wort.
Fl. Latter end of April. *Fr. mat.* Middle of June.
Hab. Rich woodlands: Bath; Forks of Brandywine: frequent. 3 to 6 inches high: flowers pale blue

Obs. This is an interesting little plant, but apt to be overlooked by all but botanical observers,—as it is usually pretty much buried among the dead leaves, which cover the ground in rich woodlands, where it grows. The whole plant is of a fleshy texture, the root somewhat coralloid; the stem 4 angled, inclining to be wavy, or flexuose, occasionally branched, with two or three remote pairs of small, opposite, scale-like leaves upon the lower part; the upper leaves are also opposite, rather crowded, cuneiform, or oblong-truncate, and often nearly rhomboidal, sessile, and slightly decurrent. The flowers are axillary, and sessile in the bosom of the bractes; the latter standing cross-wise with the leaves. From the upper pair of leaves proceed *three* flowers, the central one terminating the stem. Both leaves and bractes, are of a greenish purple, or dingy copper color; and the flowers vary from whitish, to pale blue, or purple. The seeds are numerous, very minute, of a pale straw color, shining and diaphanous. The accompanying plate gives a tolerable representation of the outlines of the plant, from a medium specimen.* When I first met with it, I was convinced it was strictly *Tetrandrous*, and so stated my opinion to the late Professor Barton; but he received the suggestion with his wonted caution, and expressed his doubts. I however ventured to arrange it in my catalogue according to my own opinion; and when I learnt that Mr. Nuttall was about preparing for the press his excellent work on the American Genera, I took the liberty of communicating to him my views on the subject,—which I was gratified to find, on the appearance of his book, were confirmed by that able and accurate Botanist.

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* It may be proper here to remark, that this plate (together with the others) was engraved several years ago,—prior to the commencement of Dr. W. P. C. Barton's American Flora, which contains a figure of this plant—otherwise I should not have taken the superfluous trouble to procure it.

70. SANGUISORBA. *Nutt. Gen.* 161.

[Lat. *Sanguis*, blood, and *sorbeo*, to absorb; from its supposed efficacy in stanching hæmorrhage.]

CAL. *inferior*, 2 leaved, resembling bractes. COR. *superior*, rotate, 4 cleft. CAPS. 4 angled, 2 celled.

S. CANADENSIS. *Ell.* Spikes cylindric, long; stamens very long; leaves unequally pinnate; leaflets serrate. *Vulgo*—Burnet Saxifrage.

Fl. Latter end of August. *Fr. mat.* Beginning of October.

Hab. Low, wet meadows: Chester creek; Brandywine: not common. About 2 feet high: flowers white.

Obs. I am not fully satisfied of the propriety of removing this genus into the order *Digynia*, as has been done by Mx. Pursh, Nuttall, &c.—and have therefore followed Mr. Elliott, in retaining it here.

b. *Corolla none.*

71. SYMPLOCARPUS. *Nutt. Gen.* 157.

[Gr. *Symploke*, connexion, and *Karpos*, fruit; descriptive of that portion of the fructification.]

Spathe cuculate. *Spadix* covered with flowers. CAL. deeply 4 parted, persistent, becoming thick & spongy.

S. FŒTIDA. *Bart. Fl. Phil.* Leaves ovate-cordate, enlarging; spadix pedunculate, oblong-oval.

Synon. Dracontium fœtidum. *Willd.* Pothos fœtida. *Mx.* & *Ph.* *Vulgo*—Swamp-cabbage. Skunk-weed.

Fl. Beginning of March. *Fr. mat.* Latter end of September.

Hab. Swamps; shaded springs, and rivulets: common. No stem: full grown leaves near 2 feet high.

Obs. This plant is notorious for the pole-cat-like odor which it emits, when wounded. The fleshy root, when chewed, causes a severe tingling, or pricking sensation, in the tongue and lips. It is a curious circumstance that this plant, which seems so obviously Tetrandrous, should have been arranged by Willdenow in *Heptandria*; by Michaux in *Monœcia*; and by Pursh in *Polyandria.*

ORDER, DIGYNIA.

72. HAMAMELIS. *Nutt. Gen.* 160.

[The derivation of this name is obscure, and unsatisfactory. See *De Theis.*]

Involucre 3 leaved. CAL. 4 cleft, persistent. COR. petals 4, long, linear. *Nut* 2 horned, 2 celled.

H. VIRGINICA. *Bart. Fl. Phil.* Leaves obovate and oval, rather unequal at base, sinuate-dentate. *Vulgo*—Witch-Hazle.

Fl. Middle of October, and after. *Fr. mat.* September, *the succeeding year!*

Hab. Borders of moist woodlands; banks of rivulets, &c. frequent. 8 to 12 feet high: flowers greenish yellow.

Obs. The flowers of this singular shrub appear after it has shed its leaves in autumn; and continue through the greater part of winter, apparently unaffected by the cold. Possibly this anomaly may have given rise to some of the absurd notions, respecting its magical virtues, which still infest a few of the credulous.

☞ For CUSCUTA, or dodder,—See class Pentandria.

ORDER, TETRAGYNIA.

73. ILEX. *Nutt. Gen.* 163.

[Etymology obscure: *Boerhaave* says, "a voce hebraica, *Elon*, quod significat quercum."]

Polygamous: CAL. minute, 4 or 5 toothed. COR. rotate, 4 parted. *Style* 0. *Stigmas* 4. BERRY 4 seeded.

I. OPACA. *Mx. Arb.* Leaves oval, with rigid, spreading, spinous teeth; fruit ovate, bright red.

Synon. I. aquifolium. *Marshall.* *Vulgo*—American Holly.

Fl. Middle of June. *Fr. mat.*

Hab. Woodlands: Barrens; Forks of Brandywine: rare. 10 to 20 feet high: flowers whitish.

Obs. This handsome evergreen tree is of small growth with us, very rare, and when found, is usually transplanted about houses, as an ornament. It is said that Birdlime may be extracted from the bark; for the mode of preparing which, See *Mx. arbres. forest. vol.* 2. *p.* 193.

74. POTAMOGETON. *Nutt. Gen.* 166.

[Gr. *Potamos*, river, and *Geiton*, neighbor; from its usual place of growth.]

CAL. 4 leaved. COR. 0. *Style* 0. *Stigmas* 4. SEEDS 4, naked.

P. NATANS. *Mx.* Leaves sublanceolate-oval, floating, on long petioles; spikes assurgent. *Vulgo*—Floating Pond-weed.

Fl. Middle of July, and after. *Fr. mat.* Middle of September.

Hab. Ponds, creeks, and rivulets: common. 9 to 18 inches long: flowers dull green.

Obs. Like most aquatics, it accommodates itself to the depth of water in which it grows.

P. LUCENS. *Mx.* Leaves long-lanceolate, tapering to a petiole at base; spikes long, cylindrical.
Synon. P. acuminatum, of the German Botanists, according to Mr. Schweinitz.
Fl. Middle of August. *Fr. mat.*
Hab. Rapid waters of the Brandywine: frequent. 2 to 4 feet long: flowers greenish brown.

P. CRISPUM? *Ph.* Leaves mostly alternate, sub-amplexicaul, oblong-ovate, undulate; spikes few-flowered.
Fl. Middle of August. *Fr. mat.*
Hab. Rapid waters of the Brandywine: frequent. 1 to 3 feet long: flowers reddish brown.

Obs. This species seems to lie on the bottom, totally submersed in swift running water. The leaves are very obscurely if at all serrate, but are undulate and curled; and the spikes are mostly lateral. I at first supposed it to be P. *perfoliatum*, of *Mx.* and *Ph.*—but Mr. Schweinitz pronounces it, with more probability, P. *crispum*. It certainly, however, does not well suit the description of *either*, in Pursh.

CLASS V. PENTANDRIA.

ORDER, MONOGYNIA.

A. FLOWERS INFERIOR. a. *Corolla monopetalous.* † *Seeds naked.*

75. PULMONARIA. *Nutt. Gen.* 173.

[Lat. *Pulmo*, plur. *Pulmones*, the Lungs; from its supposed virtue in pulmonary diseases.]

CAL. 5 toothed, prismatic-pentagonal. COR. funnel-form, somewhat 5 lobed; orifice open.

P. VIRGINICA. *Ell.* Glabrous; leaves lanceolate-ovate, and oval; flowers fasciculate, terminal; corolla long.
Vulgo—Virginian Cowslip. Lung-wort.
Fl. Latter end of April. *Fr. mat.* Beginning of June.
Hab. Rich, moist, low grounds: along Brandywine: frequent. About 2 feet high: flowers purplish blue.

Obs. Rather a handsome plant, and often introduced into our gardens. The leaves finally become a broad oval, in form; and some of them almost orbicular.

76. LITHOSPERMUM. *Nutt. Gen.* 170.

[Gr. *Lithos*, a stone, and *Sperma*, seed; from the stony hardness of its seeds.]

CAL. 5 parted; divisions subulate. COR. funnel-form, 5 lobed; orifice open, naked. *Stigma* bifid.

L. ARVENSE. *Ph.* Plant hispid; seeds rugose; corolla scarcely longer than the calyx; leaves lingulate.
Vulgo—Stone-weed. Corn Gromwell.
Fl. Beginning of May. *Fr. mat.* Beginning of June.
Hab. Grain and pasture fields: frequent. 12 to 18 inches high: flowers milk-white.

Obs. This rigid, flinty-skinned plant, is believed to be a foreigner.

77. CYNOGLOSSUM. *Nutt. Gen.* 172.

[Gr. *Kyon*, *kynos*, a dog, and *Glossa*, a tongue; from a fancied resemblance in its leaves.]

CAL. 5 parted. COR. funnel-form; orifice closed by 5 connivent processes. SEEDS affixed to the style.

C. OFFICINALE. *Sm. Fl. Brit.* Covered with soft pubescence; leaves lanceolate, sessile; racemes paniculate
Vulgo—Common Hound's-tongue.
Fl. Latter end of May, and after. *Fr. mat.* Latter end of July.
Hab. Roadsides, and about houses: Cheyney Jefferis's; Jno. Taylor's mill: rather scarce. About 2 feet high.

Obs. A foreigner, but becoming naturalized. The flowers are usually reddish brown; but I found specimens, at John Taylor's mill, with *milk white* flowers, as noticed by *Willd.* The fresh plant has a peculiarly disagreeable smell, resembling that of *mice-nests*; remarked by Dr. Smith—who says, "tota planta odore *nauseoso* fœtens." The circumstance of this odor may have given rise to an opinion, (which I believe is unfounded,) that the plant will expel rats. It dissipates as the plant dries. The medical virtues of this species are believed to be very trifling; though it has been recommended in scrophulous ulcers, to be used in the form of cataplasm.

C. AMPLEXICAULE. *Mx.* Hirsute; leaves oval-oblong, upper ones amplexicaul; corymb terminal, leafless
Synon. C. virginicum. *Willd.* and *Ell.* *Vulgo*—Wild Comfrey. Virginian Hounds-tongue
Fl. Last of May. *Fr. mat.* Beginning of August.
Hab. Rich woodlands: very common. 18 inches to 2 feet high: flowers bluish white.

Obs. The root of this species is mucilaginous; and is somewhat popular as a pectoral medicine. It is sometimes, also, used in cataplasms, for sprains, &c.

78. MYOSOTIS. *Nutt. Gen.* 169.

[Gr. *Mys, myos*, a mouse, and *Ous, otos*, an ear; from a fancied resemblance in its leaves.]

CAL. 5 cleft. COR. Salver-form, tube short; border 5 lobed, emarginate; orifice closed with 5 convex scales.

M. PALUSTRIS. *Ph.* Seeds smooth; leaves elliptic-lanceolate; racemes without bractes.
Synon. M. scorpioides. *Willd. Muhl.* &c. *Vulgo*—Marsh Scorpion-grass.
Fl. Last of May till October. *Fr. mat.* August, and after.
Hab. Springs, swamps, rivulets, &c. common. 6 to 24 inches high: flowers sky blue.

Obs. Perennial; the radical leaves continuing vigorously green through the winter,—especially about swampy springs. Some of the seeds ripen long before it has done flowering.

M. VIRGINIANA. *Ph.* Hairy; seeds barb-prickled; leaves ovate-lanceolate, acuminate; racemes divaricate.
Vulgo—Virginian Scorpion-grass.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Woodlands, and fence-rows: common. 2 to 4 feet high: flowers bluish white.

Obs. This obnoxious weed is well known to our farmers, in consequence of its racemes of bur-like seeds entangling and matting the manes of their horses, and fleeces of their sheep.

†† *Seeds covered.*

79. HYDROPHYLLUM. *Nutt. Gen.* 178.

[Gr. *Hydor, hydros*, water, and *Phyllon*, leaf; the cavities of the leaves holding water. *De Theis*—or, according to *Boerhaave*, "*Hydor*, aqua, et *Philos*, amicus; quia ad aquas crescere amat."

CAL. 5 parted. COR. campanulate, 5 cleft; 5 longitudinal grooves within. CAPS. 1 celled, 2 valved.

H. VIRGINICUM. *Ph.* Smoothish; leaves pinnatifid, and pinnate; segments oval-lanceolate, incised-serrate.
Vulgo—Virginian Water-leaf.
Fl. Middle of May. *Fr. mat* Middle of June.
Hab. Brandywine: John Taylor's; Wistar's bridge: frequent. About 1 foot high; flowers white, or purplish.

80. ANAGALLIS. *Nutt. Gen.* 188.

[Gr. *Anagelao*, to laugh; from its supposed exhilarating virtues.]

CAL. 5 cleft. COR. rotate, 5 lobed. *Filaments* hirsute. CAPS. globular, circumscissed, many seeded.

A. ARVENSIS. *Sm. Fl. Brit.* Stem procumbent, 4 angled; leaves opposite, ovate, entire, dotted beneath.
Vulgo—Red Chickweed. Scarlet Pimpernel.
Fl. Latter end of June till September. *Fr. mat.* Beginning of August, and after.
Hab. Fields, and roadsides; Wilmington road, frequent. 4 to 12 inches long: flowers orange-scarlet.

Obs. This noted little foreigner is becoming naturalized in this vicinity. A few years ago, it was not to be seen nearer than about the Delaware state line, towards Wilmington; but it has been gradually and steadily working its way up country, and is now frequently to be met with around the Borough. The idle stories concerning its efficacy in curing *Hydrophobia*, though occasionally revived by ignorant or designing Empirics, are now pretty correctly appreciated by the public. About twenty years since, the pretended remedy was disclosed to the Legislature of this State, by way of special favor, as though it were a great secret, and a *new* and important discovery; yet *Boerhaave* in his *Historia Plantarum*, published as long ago as 1731, says "*morsui canis rabidi* subvenire a nonnullis dicitur."

81. LYSIMACHIA. *Nutt. Gen.* 187.

[Said to be so named after *Lysimachus*, a King of Sicily. Literally *Loose-strife*. See *De Theis.*]

CAL. 5 cleft. COR. rotate, 5 cleft. CAPS. globular, mucronate, 5 or 10 valved, few or many seeded.

L. QUADRIFOLIA. *Ph.* Leaves subsessile, in 4's and 5's; peduncles in 4's; corolla-segments oval, entire.
Synon. L. hirsuta. *Mx.* *Vulgo*—Loose-strife.
Fl. Beginning of June, and after. *Fr. mat.*
Hab. Woodlands, and low grounds: common: 1 to 2 feet high: flowers yellow.

Obs. Some Empirics highly recommend the infusion of this plant in *Hæmorrhoids*, or piles; but its virtues, if any, are unknown to me.

L. CILIATA. *Ph.* Leaves petiolate, opposite; petioles ciliate; corolla-segments acuminate, crenate.
Fl. Latter end of June. *Fr. mat.*
Hab. Borders of woodlands and thickets; Bath: frequent. 2 to 3 feet high: flowers yellow.

82. SABBATIA. *Nutt. Gen.* 206.

[Dedicated to two Italian Botanists, of the name of *Sabbati*.]

CAL. 5 to 12 parted. COR. 5 to 12 parted. *Stigmas* 2, spiral. *Anthers* finally revolute. CAPS. 1 celled.

S. ANGULARIS. *Bart. Fl. Phil.* Stem 4 angled, winged; leaves ovate, amplexicaul; flowers corymbose.
Synon. Chironia angularis. *Muhl. Mx. Willd.* *Vulgo*—Centaury.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Sterile old fields; Barrens: frequent. 1 to 2 feet high: flowers palish red; often *Hexandrous*.

Obs. This handsome herb is an intense bitter; and deservedly popular as a tonic medicine. It is much more abundant some years than others. Dr. Smith (*in Cyclop.*) does not approve of this genus; but having received the sanction of such Botanists as Pursh, Elliott, and Nuttall, I have thought it best to retain it.

83. DATURA. *Nutt. Gen.* 200.

[Obscure; supposed to be from *Datora* (or *tatorah*,) the Arabic name of the plant. *De Theis*.]

CAL. tubular, angular, deciduous. COR. funnel-form, plicate. CAPS. 4 celled, 4 valved, spinose, or smooth.

D. STRAMONIUM. *Ell.* Pericarps spinose, erect, ovate; leaves ovate, sinuate, glabrous.
Vulgo—James-town (or corruptly, *Jimson*,) weed. Thorn-apple. French Chesnut.
Fl. Beginning of July till September. *Fr. mat.* Beginning of October.
Hab. About houses; lanes, barn-yards, roadsides, &c. common. 2 to 5 feet high; flowers pale purple.

Obs. This plant is said to be a native of America; but it has every appearance of having been introduced, and merely naturalized, in this region. It possesses powerful medical properties; for an account of which see *Dr. S. Cooper's Inaugural Thesis*, 1797—and some later works. The root, *smoked* like tobacco, is a popular remedy for asthmatic affections, in this neighborhood; and I have never known any mischievous consequences to result from it—though Mr. Elliott states that bad effects have ensued the practice. It certainly is a plant possessed of such active properties as to require prudence and skill in the use of it. Boerhaave, in his *Historia Plantarum*, gives the following account of it—"hac utuntur meretrices Javanenses, dum a primariis sunt conductæ, tum hanc plantam maritis suis dant et delirii species subsequitur, unde coram maritis lascivia utuntur, et si hæc planta in majori copia detur, stupidi manent, languent et tandem moriuntur."

84. VERBASCUM. *Nutt. Gen.* 203.

[Quasi *Barbascum*; from the Lat. *Barba*, beard—on account of its bearded, hairy, or woolly leaves.]

CAL. 5 parted. COR. rotate, 5 lobed, unequal. *Stam.* declined, bearded. CAPS. 2 celled; valves inflected.

V. THAPSUS. *Ell.* Whole plant very tomentose; leaves lanceolate, decurrent; stem simple.
Vulgo—Common Mullein.
Fl. Middle of June, and after. *Fr. mat.* Last of August, and after.
Hab. Fields, and roadsides; every where common. 3 to 6 feet high: flowers yellow.

Obs. Native of Europe; but superabundantly naturalized. An infusion of the leaves is somewhat popular as a remedy in Dysentery, but is probably little worth. Pursh says this plant sometimes makes its appearance, in a sudden and mysterious manner, in remote parts of the country, where the grounds have been newly cleared and burnt: but similar mysteries attend the propagation of several other plants,—and most probably, they may all be solved by a little more attention to, and a better acquaintance with, the economy of vegetation.

V. BLATTARIA. *Ell.* Leaves amplexicaul, oblong, serrate, glabrous; peduncles 1 flowered, solitary.
Vulgo—Moth Mullein.
Fl. Middle of June, and after. *Fr. mat.* Middle of August, and after.
Hab. Pasture fields, and fence-rows; frequent. 1 to 3 feet high: flowers whitish, with tinges of red.

Obs. Also a foreigner. The variety with *yellow* flowers has not yet been seen in this vicinity; though I have observed it in abundance on the vacant lots in Philadelphia.

85. CONVOLVULUS. *Nutt. Gen.* 190.

[Lat. *Convolvo*, to wrap, intwine, or wind about: descriptive of the plant.]

CAL. 5 parted. COR. campanulate, plicate. *Stigmas* 2, oblong, or globose. CAPS. 2 or 3 celled.

C. PANDURATUS. *Ell.* Stem voluble, often prostrate; leaves cordate, entire or lobed, and panduræform.
Vulgo—Bind-weed. Wild Potato-vine.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September.
Hab. Old fields, fence-rows, &c. frequent. 3 to 6 feet long: flowers white, often red at the bottom.

Obs. This species embraces several *varieties*, or else the descriptions are much confused. I have also specimens with leaves uniformly cordate, and acuminate; peduncles *shorter* than the petioles, flowers white, and stigmas globose; marked by Mr. Schweinitz "C. *sepium americanum*."—possibly a variety of C. *repens*, described by Mr. Elliott.

C. SPITHAMÆUS. *Ell.* Erect; leaves oval, pubescent; peduncles 1 flowered, nearly as long as the leaves.
Synon. C. stans? *Mx.* Calystegia tomentosa. *Ph?* and yet the stigmas are *oblong*!
Fl. Beginning of June. *Fr. mat.* Latter end of August.
Hab. Woodlands: Eachus's, and Parker's woods: frequent. 9 to 12 inches high: flowers white.

Obs. A number of years ago, I found this plant in Parker's woods, whence I transplanted it into my garden; where it grew luxuriantly, and threatened to become a nuisance. In the course of three or four years it totally disappeared, and I could not find it in all the neighborhood. It however made its appearance again in three or four years more, in considerable quantities; not only in the woodlands,—but also in the garden where it had formerly grown, so as to be quite troublesome.

86. PHLOX. *Nutt. Gen.* 193.

[Gr. *Phlox*, fire, or flame; in allusion to the color of the flowers.]

CAL. 5 cleft, prismatic. COR. salverform; tube curved. *Filaments* unequal. *Stigma* trifid. CAPS. 3 celled.

P. MACULATA. *Ph.* Stem rough, spotted; leaves ovate-lanceolate, acute; panicle oblong; flowers crowded.
Vulgo—Wild Sweet-William. Spotted-stalked Lychnidea.
Fl. Beginning of June, and after. *Fr. mat.* Beginning of August.
Hab. Meadows, low grounds, and borders of rivulets: frequent. About 2 feet high: flowers bright purple.

Obs. A beautiful, showy plant; worthy to be introduced into flower gardens.

P. PILOSA. *Ell.* Pubescent; leaves linear-lanceolate: corymbs subfastigiate; calyx teeth long, subulate.
Fl. Latter end of May, and after. *Fr. mat.* Latter end of July.
Hab. Borders of woodlands; Bath woods: frequent. 10 to 20 inches high: flowers pale red.

P. SUBULATA. *Ell.* Procumbent; hirsute; leaves subulate, ciliate; corymbs few flowered.
Vulgo—Mountain Pink. Ground Pink.
Fl. Latter end of April. *Fr. mat.* Middle of June.
Hab. Barren Ridge; very abundant. 6 to 12 inches long: flowers bright purple.

Obs. This handsome little species is exclusively confined to the most sterile parts of the Barren Ridge; large tracts of which are covered, and highly ornamented by its flame-colored flowers, about the last of April.

87. POLEMONIUM. *Nutt. Gen.* 195.

[*Boerh.* says "a *Poly*, (Gr.) multum, & *monon*, solum, quasi multa folia unicum folium componentia."]

CAL. 5 cleft. COR. 5 lobed; tube short, closed at base by 5 staminiferous valves. *Stig.* trifid. CAPS. 3 celled.

P. REPTANS. *Ell.* Stem weak; leaves pinnate, by 7's, 9's, and 11's; flowers terminal, nodding.
Vulgo—Jacob's Ladder. Greek Valerian.
Fl. Beginning of May. *Fr. mat.* Beginning of June.
Hab. Moist grounds; meadows, and woodlands: frequent. 12 to 18 inches high: flowers sky blue.

88. AZALEA. *Nutt. Gen.* 207.

[Gr. *Azaleos*, arid, or dry; because it usually grows in dry soils. *De Theis.*]

CAL. 5 parted. COR. funnel-form, or campanulate, 5 cleft, unequal. *Stam.* & *Style* declined. CAPS. 5 celled.

A. NUDIFLORA. *Ell.* Flowers rather naked; leaves lanceolate-oblong; stamens much exserted.
Synon. A. periclymenoides. *Mx.* and *Ph.* *Vulgo*—Wild Honeysuckle. Rosebay.
Fl. Beginning of May. *Fr. mat.* Beginning of June.
Hab. Woodlands: very common. 2 to 6 feet high: flowers mostly red,—sometimes nearly white.

Obs. The *varieties* of this beautiful flowering shrub, are very numerous here; but I am not certain that I have met with any distinct species.

89. SOLANUM. *Nutt. Gen.* 196.

[Obscure: perhaps from the Lat. *Solari*, to solace, or assuage; from its supposed medical virtues.]

CAL. 5 cleft. COR. sub-rotate, plicate. *Anthers* partly united, opening at point by double pores.

S. NIGRUM. *Ell.* Stem unarmed, herbaceous; leaves ovate, angled; flowers in umbels, nodding.
Vulgo—Night-shade.
Fl. Beginning of July, and after. *Fr. mat.* Latter end of August.
Hab. About houses; gardens; and among rubbish: frequent. 12 to 20 inches high: flowers white.

S. CAROLINENSE. *Ell.* Stem aculeate, annual; leaves hastate-angled, prickly on both sides; racemes loose.
Vulgo—Horse Nettle. Carolina Nightshade.
Fl. Middle of July. *Fr. mat.*
Hab. Roadside, near Marshalton; near Squire Graves's barn: rare. 1 to 2 feet high: flowers bluish white.

Obs. This is a stranger; believed to have been introduced by the late Humphry Marshall into his Botanic garden,—whence it has escaped, and bids fair, if not kept in check, to be rather a troublesome plant; as the root is perennial, and tenacious of life.

90. PHYSALIS. *Nutt. Gen.* 198.

[Gr. *Physa*, an inflated bladder, or bag; in allusion to the bladdery calyx, enclosing the fruit.]

COR. campanulate-rotate. *Stamens* connivent, BERRY 2 celled, inclosed in the inflated *Calyx*.

P. VISCOSA. *Ell?* Leaves subcordate, repand; stem paniculate above; fruit-bearing calyx pubescent.
Vulgo—Clammy Ground-Cherry.
Fl. Beginning of July, and after. *Fr. mat.* September, and after.
Hab. Fence-rows, roadsides &c. common. 12 to 18 inches high: flowers yellow.

Obs. The fruit of this species is scarcely esculent. If it be the same described by Mr. Elliott, under that name, it rarely if ever, with us, attains the height he mentions; viz. 2 to 3 feet.

P. PENNSYLVANICA. *Ell.* Leaves ovate, sub-repand; peduncles solitary, hairy, as long as the petioles.
Vulgo—Esculent Ground-Cherry.
Fl. Latter end of June, and after. *Fr. mat.* Latter end of August, and after.
Hab. Cultivated grounds; fence-rows, &c. frequent. About 1 foot high: flowers yellow.

Obs. The berry of this species is considerably more pulpy than the preceding, and when fully ripe is esculent, and admired by some. With us, the ripe fruit is, I think, always yellow, or orange colored; and not *red*, as quoted by Mr. Elliott, from Linnæus.

P. OBSCURA. *Tor?* Divaricately branched; leaves cordate-suborbiculate, acuminate, unequally dentate.
Synon. P. pruinosa? *Ell.*
Fl. Middle of July. *Fr. mat.*
Hab. Stony banks: near Wm. Hawley's: not common. 9 to 12 inches high: flowers greenish yellow.

Obs. Mr. Schweinitz, who examined my specimen, thinks it is the P. obscura, of Torrey; but says it is materially different from the P. obscura, as found at Salem, N. Carolina.

b. *Corolla mostly pentapetalous.*

91. CEANOTHUS. *Nutt. Gen.* 229.

[A name derived from the ancient Greek writers, and applied to this genus.]

CAL. turbinate, 5 cleft. COR. petals squamiform; claws long. CAPS. 3 angled, 3 celled, 3 seeded.

C. AMERICANUS. *Ell.* Leaves ovate, acuminate, serrate; panicles axillary, on long peduncles.
Vulgo—New Jersey Tea. Red-root.
Fl. Latter end of June, and after. *Fr. mat.* Last of September.
Hab. Woodlands, borders of thickets, &c. common. 2 to 3 feet high: flowers white.

Obs. This little shrub possesses considerable astringency in the bark of its roots; and may be useful, as Marshall and Schœpf say it is, in gonorrhœas, and other cases where astringents are indicated. It is said the leaves were much used by the Whigs, during the American Revolution, as a substitute for the proscribed *Tea* of the English East-India Company: which circumstance alone, judging from the sensible properties of the plant, might be taken as pretty good evidence of their zeal in the cause!

92. CELASTRUS. *Nutt. Gen.* 231.

[A name borrowed from the ancient Greek writers.]

CAL. 5 lobed. *Style* thick, perforate. CAPS. 3 valved; valves septiferous in the centre. SEEDS semi-arillate

C. SCANDENS. *Marshall.* Unarmed; leaves oblong, and obovate, acuminate, serrate; racemes terminal.
Vulgo—Climbing Staff-tree. Wax-work.
Fl. Beginning of June. *Fr. mat.* Beginning of September.
Hab. Woodlands, and fence-rows; Bath, &c. frequent. 10 to 15 feet high: flowers greenish yellow.

Obs. This climbing, shrubby vine, though frequently to be met with, of a small size, along fence-rows, &c. is now very rarely found producing fruit, or flowers.

93. EUONYMUS. *Nutt. Gen.* 230.

[Gr. literally *good name*; by way of antiphrasis; the plant being reputed *infamous* for its properties.]

CAL. 4 or 5 cleft, with a flat peltate disk at base, within. CAPS. 3 to 5 angled, 3 to 5 valved, colored.

E. ATROPURPUREUS. *Ph.* Leaves petiolate, oblong-lanceolate; peduncles divaricate; fruit smooth.
Vulgo—Spindle-tree. Wild Burning-bush.
Fl. Middle of June. *Fr. mat.* Beginning of October.
Hab. Rich woodlands: forks of Brandywine: rare. 6 to 8 feet high: flowers dark, or brownish purple.

Obs. I have only met with this shrub on the right bank of the Brandywine, just below the forks; where it is pretty abundant. It is constantly *Tetrandrous*, and tetrapetalous, with the calyx 4 cleft, and capsule mostly 4 angled.

94. VITIS. *Nutt. Gen.* 219.

[Obscure: *Boerh.* says, "a *vieo*, flecto, quia vitis capreoli apprehendunt plantas vicinas."]

Polygamous: COR. petals cohering above, coming off at base. BERRY mostly 5 seeded, globose.

V. LABRUSCA. *Ph.* Leaves broad-cordate, hoary-tomentose beneath; fertile racemes small; fruit large.
Synon. V. vulpina. *Bartram*, and *Marshall*. *Vulgo*—Fox Grape.
Fl. Middle of June. *Fr. mat.* Beginning of September.
Hab. Rich, moist thickets; banks of creeks and rivulets; frequent. 15 to 25 feet long; berries mostly black.

Obs. There are several *varieties* of this well known grape; some with berries reddish, or purple, and others producing a fruit nearly *white*, which is rather scarce here. Pursh considers the valuable *Bland's* grape as a variety of this; though Bartram with more probability, I think, supposes it to be a hybrid. The *Schuylkill* grape, (called also *Alexander's*, and *Tasker's* grape,) is likewise supposed to be a hybrid, allied to this species. For an interesting notice of some American Vines, by the late Mr. W. Bartram, see *Med. Repository, Hexade* 2, *vol.* 1. *p.* 20.

V. ÆSTIVALIS. *Ph.* Leaves 3 to 5 lobed, dentate, russet tomentum beneath; racemes oblong; fruit small.
Synon. V. sylvestris, & occidentalis. *Bartr.* V. intermedia. *Muhl.* *Vulgo*—Little Grape. Summer Grape.
Fl. Beginning of June. *Fr. mat.* Last of September:
Hab. Thickets, fence-rows, and woodlands; common. 20, to 60 or 80 feet high; berries dark blue.

Obs. There are also many, and valuable *varieties* of this species. That marked *sinuata*, by Pursh, is frequent here. In some instances, in rich woodlands, this species ascends to the top of the loftiest trees,—the naked vines extending from the ground to the upper limbs, somewhat resembling the halyards of a maintopgallant sail. It is believed that the better sorts of this grape will be found well worthy of culture, in this country, for the purpose of making wine. A complete description of our native Vines is quite a desideratum at this time, when the spirit of planting vineyards is becoming so prevalent.

V. CORDIFOLIA. *Ph.* Leaves cordate, acuminate, incised-dentate, glabrous; racemes loose; fruit small.
Synon. V. vulpina. *Willd. sec. Sm. Cyclop.* V. serotina? *Bartr.* *Vulgo*—Chicken Grape. Winter Grape.
Fl. Middle of June. *Fr. mat.* Beginning of October.
Hab. Fence-rows, and borders of woods: frequent. 10 to 20 feet long: berries amber color.

Obs. The fruit of this species is very acerb, and scarcely eatable, even when frosted. A large proportion of the American vines are *Males*, (or at least have abortive germs,) and are consequently sterile. This is particularly the case with V. æstivalis.

95. CISSUS. *Nutt. Gen.* 220.

[From the Greek, *Kissos*, ivy; applied to this genus, from its resemblance to that plant.]

COR. petals unconnected above, spreading. *Nect.* girding the germ. BERRY 2 celled, 1 to 4 seeded.

C. HEDERACEA. *Ph.* Stem radicant, climbing; leaves quinate-digitate; racemes cymose, dichotomous.
Synon. Ampelopsis quinquefolia. *Mx.* Vitis hederacea. *Willd.* *Vulgo*—Virginian Creeper. American Ivy.
Fl. Middle of July. *Fr. mat.* Middle of October.
Hab. Woodlands, fence-rows, and hedges: common. 10, to 30 or 40 feet high: flowers yellowish green.

Obs. This shrubby vine is sometimes cultivated as a covering to the walls of houses, to which it readily attaches itself; but the leaves being deciduous, it is not very ornamental in winter, and is somewhat injurious to the wall. The berries are black, when ripe—at which time the peduncles are a pretty bright red. Dr. Smith (*Cyclopæd.*) insists that this plant is a real *Vitis*, and consequently disapproves of its arrangement here. I have, however, concluded to follow the late writers on American Botany.

96. IMPATIENS. *Nutt. Gen.* 224.

[A metaphorical name; given on account of the *Impatience*, or elasticity of the seed-vessels, when touched.]

CAL. 2 leaved. COR. irregular, spurred. *Anthers* at first cohering. CAPS. 1 celled, 5 valved, elastic.

I. PALLIDA. *Nutt.* Leaves rhombic-ovate, rather acute; nectary obtusely conic, shorter than the petals.
Synon. I. nolitangere. *Willd. Ph. Ell.* &c. *Vulgo*—Snap-weed. Touch-me-not.
Fl. Beginning of July till October. *Fr. mat.* Middle of August, and after.
Hab. Moist, shaded grounds; thickets &c. frequent. 3 to 5 feet high: flowers *palish yellow*.

I. FULVA. *Nutt.* Leaves rhombic-ovate, obtuse; nectary acutely conic, longer than the petals.
Synon. I biflora. *Pk.* and *Ell.* *Vulgo*—Snap-weed. Night-shade. Touch-me-not.
Fl. Latter end of June till October. *Fr. mat.* Beginning of August, and after.
Hab. Wet, low grounds; rivulets, fence-rows, &c. common. 2 to 5 feet high: flowers *deep yellow, spotted.*

Obs. These two species, if they be really such, closely resemble each other in general appearance; and are more readily distinguishable by their flowers, than any thing else. Their succulent, and almost pellucid stems, are sometimes bruised and applied externally, as refrigerant cataplasms, in cases of phlegmons, &c.

97. VIOLA. *Nutt. Gen.* 225.

[A latin name of obscure derivation. See *De Theis.*]

CAL. 5 leaved. COR. irregular; lower petal cornute behind. *Anthers* connivent. CAPS. 1 celled, 3 valved.

§ 1. *Without Stems.*

V. PEDATA. *Schweinitz.* Leaves pedate, about 7 parted; segments linear-lanceolate, entire, or dentate.
Fl. Latter end of April. *Fr. mat.* Middle of June.
Hab. Slaty, barren hills; north of West-Chester: frequent: flowers handsome blue.

Obs. For a highly interesting monography of this family of plants, by the Rev. *L. D. v. Schweinitz*, See *Silliman's Journal of Science, Vol. 5. p.* 48.

V. PALMATA. *Schw.* Leaves cordate, or hastate-lobed, and palmate; lobes polymorphous, crenate-dentate.
Fl. Beginning of May. *Fr. mat.* Latter end of June.
Hab. Woods, and low grounds: Patton's woods: frequent: flowers blue.

Obs. There is an almost endless variety in the forms of the leaves of this species. I have specimens, however, very regularly digitate, which Mr. Schweinitz says he has latterly begun to consider a distinct species; and may be called V. *digitata.*

V. ASARIFOLIA. *Schw.* Leaves dilated-reniform, acute, crenate-dentate; petioles densely pilose; scape short.
Fl. Latter end of April. *Fr. mat.* Beginning of June.
Hab. Rich woodlands: Bath woods: frequent: flowers bluish purple.

V. SAGITTATA. *Schw.* Leaves oblong, cordate-sagittate, and incised at base; scapes as long as the leaves.
Fl. Latter end of April. *Fr. mat.* Beginning of June.
Hab. Dry, sterile hills: Barren ridge: frequent: flowers pale blue.

V. OVATA. *Schw.* Leaves ovate, subcordate, crenate; petioles marginate; scapes longer than the leaves.
Synon. V. ciliata. *Muhl.* V. primulifolia. *Ph.* not of *Ell.* nor *Willd.*
Fl. Latter end of April. *Fr. mat.*
Hab. Dry sterile hills: north of Joseph Taylor's: frequent: flowers bright blue.

V. CUCULLATA. *Schw.* Leaves cordate, cowled, veined; scape terete; lower petal rounded, bearded.
Fl. Latter end of April. *Fr. mat.*
Hab. Along rivulets, and shaded low grounds: frequent: flowers blue.

V. OBLIQUA. *Schw.* Leaves cordate, acute, smooth; scape channelled, long; lower petal acute, beardless.
Fl. Middle of May. *Fr. mat.*
Hab. Moist, shaded grounds; swampy springs, &c. Bath woods: frequent: flowers deep blue:

V. PRIMULÆFOLIA. *Schw.* Leaves erect, mostly oblong, obtuse, and abruptly decurrent on the petioles
Fl. Latter end of May. *Fr. mat.*
Hab. Moist woodlands, and low grounds; Patton's woods: frequent: flowers white.

Obs. Some of the younger leaves of this species are completely orbicular; others ovate, or cordate, and acute.

V. BLANDA. *Schw.* Leaves flat, broad-cordate, often rather acute, sometimes orbicular; sinus nearly closed.
Fl. Latter end of April, and after. *Fr. mat.*
Hab. Swamps, borders of shaded rivulets, &c. frequent: flowers small, white, or cream-colored.

§ 2. *Producing Stems.*

V. OCHROLEUCA. *Schw.* Stem erect; leaves cordate; stipules ciliate-dentate; lateral petals densely bearded.
Synon. V. striata. *Nutt. Persoon. Ph? Willd?* not of *Muhl.*
Fl. Beginning of May. *Fr. mat.*
Hab. Brandywine, below Wistar's bridge; rare. 5 to 10 inches high: flowers large, ochre, or cream-colored.

V. DEBILIS. *Schw.* Stem decumbent; leaves reniform-cordate, and suborbicular, crenate; peduncles long.
Synon. V. striata. *Muhl.* and *Ell?*
Fl. Beginning of May, and after. *Fr. mat.*
Hab. Woodlands; Wollerton's and Patton's: frequent. 3 to 6 inches high: flowers pale blue, or purplish.

V. PUBESCENS. *Schw.* Villous-pubescent; stem erect, leafy above; leaves broad-cordate, acuminate.
Synon. V. pennsylvanica. *Mx.*
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Borders of Woodlands: Bath: frequent. 6 to 12 inches high: flowers yellow.

Obs. The variety, *eriocarpon*, of Nuttall, is also frequent here; more common, I think, than the other.

V. SCABRIUSCULA. *Schw.* Stem decumbent, leafy; leaves reniform-cordate, acute; stipules large, ciliate.
Synon. V. eriocarpa. *Schw. in Sill. Jour. Vol. 5. p. 75.* V. nondescripta. *secund. Le Conte.*
Fl. Beginning of May. *Fr. mat.*
Hab. Moist low grounds: forks of Brandywine: frequent. 3 to 6 inches high: flowers yellow.

Obs. Mr. Schweinitz pronounced this to be his V. eriocarpa, described in Silliman's Journal; and remarked that he wished to abandon that name, and restore the one he first gave it; viz. V. scabriuscula. Mr. Le Conte, to whom I showed a specimen in 1817, called it V. *non descripta.*
I have never been so fortunate as to meet with V. *concolor*, in this vicinity; though I have always supposed it must occur along the Brandywine.

98. CLAYTONIA. *Nutt. Gen.* 226.

[In honor of *John Clayton*; an eminent Botanist of Virginia.]

CAL. 2 leaved. *Stigma* trifid. CAPS. 1 celled, 3 valved, 3 to 5 seeded. SEEDS sub-reniform, smooth, shining.

C. VIRGINICA. *Ell.* Leaves two, mostly opposite, linear-lanceolate; raceme simple; root tuberous.
Fl. Middle of April, and after. *Fr. mat.* Latter end of May.
Hab. Meadows, and low grounds: common. 6 to 10 inches high: flowers pale red, striped.

B. FLOWERS SUPERIOR: *Corolla monopetalous.*

99. CAMPANULA. *Nutt. Gen.* 209.

[Lat. *Campanula*, a little bell; the flowers being bell-shaped.]

COR. closed at bottom with 5 staminiferous valves. CAPS. 3, rarely 5 celled, opening by lateral pores.

C. AMERICANA. *Ph.* Branching; leaves cordate, and lanceolate, serrate; style longer than the corolla.
Fl. Middle of August. *Fr. mat.* Latter end of September.
Hab. Shaded grounds; Forks of Brandywine: not common. About 2 feet high: flowers pale blue.

C. APARINOIDES. *Ph.* Retro-aculeate; slender; leaves linear-lanceolate; peduncles filiform, 1 flowered.
Synon. C. erinoides. *Ell. Willd.*
Fl. Middle of July, and after. *Fr. mat.*
Hab. Swamps, and margins of rivulets: frequent. 1 to 2 feet high: flowers pale purple.

C. AMPLEXICAULIS. *Ell.* Stem simple, erect; leaves amplexicaul; flowers axillary, sessile, glomerate.
Synon. C. perfoliata. *Willd. Muhl.* and *Ph.*
Fl. Middle of June. *Fr. mat.* Latter end of July.
Hab. Cultivated grounds, particularly wheat-fields: common. About 1 foot high: flowers purpl

100. DIERVILLA. *Natt. Gen.* 215.

[Dedicated to *M. Dierville*; a French Surgeon, who first introduced it into Europe.]

CAL. oblong, 5 cleft, bracteate at base. COR. long, funnel-form, 5 cleft. CAPS. oblong, acute, 4 celled.

D. CANADENSIS. *Ell.* Peduncles axillary, and terminal, dichotomous; leaves ovate, serrate, acuminate.
Synon. D. lutea. *Ph.* D. Tournefortii. *Mx.* Lonicera Diervilla. *Willd.*
Fl. Beginning of June. *Fr. mat.*
Hab. Patton's woods; Brandywine, near Worth's Mill: rare. 1½ to 2 feet high: flowers pale yellow.

101. TRIOSTEUM. *Nutt. Gen.* 216.

[Gr. *Treis*, three, and *Osteon*, a bone; in reference to its three bony seeds.]

CAL. 5 cleft, persistent; segments long, linear, acute. COR. tubular, 5 lobed. BERRY 3 celled, 3 seeded.

T. PERFOLIATUM. *Ell.* Leaves oval, acuminate, abruptly narrowed at base, connate; flowers axillary.
Synon. T. majus. *Mx.* *Vulgo*—Gentian. Horse-Gentian. Dr. Tinker's weed. Wild Coffee.
Fl. Latter end of May. *Fr. mat.* Beginning of September.
Hab. Rich, hilly grounds; along fence-rows, &c. frequent. 3 to 4 feet high: flowers dark purple.

Obs. This plant is reputed medicinal, as an emetic, and cathartic; and, in small doses, as a tonic. It was a favorite medicine with the *Aborigines* of this part of the country. I well recollect the last *Indian Doctress*, of the Delaware tribe, in this vicinity,—who seemed to consider it as a sort of Panacea, and prescribed it in all cases of disease, without distinction. Messrs. Pursh and Elliott speak of the Berry as being *dark purple*; but I have always found it, when ripe, to be of a bright *orange color*. The flowers considerably resemble those of the Calycanthus, or sweet-scented shrub, in appearance.

C. FLOWERS INCOMPLETE.

☞ For QUERIA, See class *Triandria*.

102. NYSSA. *Nutt. Gen.* 788.

[Obscure: *Linnæus* says he so named it, "because it grows in the waters."]

Polygamous: MALE—Stamens 5, sometimes 8, 10, and 12, seated around a peltate gland.
HERMAPH. *Cal.* 5 parted. *Cor.* 0. *Drupe* inferior. *Nut* 1 seeded.

N. SYLVATICA. *Marshall.* Leaves obovate, entire, acute at both ends; petioles, mid-ribs, & margins villous.
Synon. N. villosa. *Mx. Ph.* &c. *Vulgo*—Gum. Sour Gum. Black Gum.
Fl. Latter end of May. *Fr. mat.* Last of September.
Hab. Woodlands generally—especially in low, moist grounds: common. 30 to 60 feet high: flowers greenish.

Obs. The woody fibres of this tree are remarkably interlocked, so as to render it very difficult to be split; on which account it is much used in making naves, (or *hubs*, as they are termed,) for carriage-wheels, and also hatter's blocks. The younger trees afford a fine shade, when growing solitary; and, in the fall of the year, the leaves add much to the picturesque appearance of the country, by changing to a bright crimson color.

ORDER, DIGYNIA.

A. FLOWERS INFERIOR. a. *Corolla monopetalous.*

103. APOCYNUM. *Nutt. Gen.* 238.

[GR. *Apo*, far from, or distant, and *Kyon*, *Kynos*, a dog; it being thought destructive of that animal.]

CAL. 5 cleft. COR. half 5 cleft. *Anthers* cohering to the stigma. *Follicles* 2, long, linear. *Seeds* comose.

A. ANDROSÆMIFOLIUM. *Ph.* Leaves ovate; cymes mostly terminal; limb of the corolla spreading.
Vulgo—Dog's-bane. Tutson-leaved Dog's-bane.
Fl. Latter end of June, *Fr. mat.* Middle of September.
Hab. Borders of woods, fields, and meadows: frequent. 2 to 3 feet high: flowers pale red, striped.

A. CANNABINUM. *Ph.* Leaves oblong-oval, acute at each end; cymes paniculate; limb of the corolla erect.
Synon. A. pubescens? *Ell.* *Vulgo*—Indian Hemp.
Fl. Beginning of August. *Fr. mat.*
Hab. Borders of woods; Barrens: somewhat rare. 2 to 4 feet high: flowers greenish white.

Obs. There is some variety in the leaves of my specimens; some being oblong-oval, and others lanceolate and tapering at base: or, possibly, I may have blended the two species (A. cannabinum, and A. pubescens,) which Mr. Elliott remarks have hitherto been confounded. But if they be really distinct, they closely resemble each other in habit. The *pubescence* is but slight in any of those which I possess.

104. ASCLEPIAS. *Nutt. Gen.* 213.

[The Greek name of *Æsculapius*; to whom this genus is dedicated.]

COR. mostly reflected. *Nectary* 5 parted; segments ovate, cucullate, with a little horn projecting from each.

§ 1. *Leaves opposite.*

A. SYRIACA. *Ph.* Stem simple; leaves lanceolate-oblong, tomentose beneath; umbels somewhat nodding.
Vulgo—Silk-weed. Wild Cotton. Milk-weed. Swallow-wort.
Fl. Latter end of June. *Fr. mat.* Beginning of September.
Hab. Fence-rows, &c. frequent. 3 to 4 feet high: flowers dingy purple; follicles muricate.

Obs. Schœpf says the young shoots, cooked like asparagus, may be eaten without injury; and that the Canadians prepare a brown sugar from the expressed juice of the flowers, which is not ungrateful to the taste.

A. PHYTOLACCOIDES. *Ell.* Leaves broad-lanceolate, subacuminate; umbels lateral, on long peduncles.
Synon. A. exaltata (acuminata.) *Muhl.* *Vulgo*—Poke-leaved Swallow-wort.
Fl. Latter end of June. *Fr. mat.*
Hab. Borders of shaded rivulets: Ed. Darlington's: rare. About 4 feet high: flowers greenish white.

Obs. This is not a common species here, and is still more rarely to be found flowering. I have, however, some very fine specimens, collected in full bloom, in 1823, the flowers of which agree better with the description given by Nuttall, than with that of Elliott, and Pursh. The petals are *pale green*, and the nectaries *whitish, tinged with purple* at base; nearly *scentless*. The leaves are very large, somewhat acuminate, and remarkably resembling those of Phytolacca. I have not had an opportunity to observe the fruit.

A. INCARNATA. *Ell.* Branching above; tomentose; leaves lanceolate; umbels in pairs; horns exserted.
Fl. Middle of July, and after. *Fr. mat.* Last of September, and after.
Hab. Low, Swampy grounds; common. 2 to 3 feet high: flowers flesh colored; follicles smooth.

Obs. The more hairy variety, marked *pulchra*, by Pursh, is also frequent here.

A. PURPURASCENS. *Ph.* Stem simple; leaves ovate, villous beneath; umbels erect; nectaries resupinate.
Fl. Last of June. *Fr. mat.*
Hab. Roadside, below Cheyney Jefferis's: rare. 2 to 3 feet high: flowers dingy purple.

A. VARIEGATA. *Ell.* Leaves broad-oval, glaucous beneath; umbels terminal; peduncles tomentose.
Synon. A. hybrida. *Mx.*
Fl. Latter end of June. *Fr. mat.*
Hab. Dry hills, and woodlands: Barrens &c. frequent. 2 to 3 feet high: flowers white, purple within.

Obs. The leaves of this handsome species vary considerably in form. They are mostly a broad oval; but sometimes ovate, obovate, and not unfrequently almost orbicular.

A. OBTUSIFOLIA. *Mx.* Leaves sessile, obtuse, waved, glabrous; umbel terminal, on a long peduncle.
Fl. Latter end of June. *Fr. mat.* Beginning of September.
Hab. Dry hills: Barrens, &c. not common. 2 to 3 feet high: flowers greenish purple; follicles smooth.

A. QUADRIFOLIA. *Ph.* Leaves ovate-acuminate, in 4's on the middle of the stem; umbels terminal.
Fl. Latter end of May. *Fr. mat.* Middle of August.
Hab. Rich woodlands, and fence-rows: frequent. 1½ to 3 feet high: flowers white; follicles smooth.

§ 2. *Leaves verticillate, or scattered.*

A. VERTICILLATA. *Mx.* Stem simple, pubescent in lines; leaves narrow-linear, upright, mostly verticillate.
Fl. Middle of July, and after. *Fr. mat.* Middle of September.
Hab. Sterile hills: Barren ridge: frequent. 1½ to 2 feet high: flowers greenish white; follicles smooth.

Obs. This species is almost exclusively confined to the sterile banks of serpentine rock; where it grows plentifully along with Talinum, and some other plants equally local in their habitat.

A. TUBEROSA. *Ph.* Hirsute; divaricately branching above; leaves oblong-lanceolate; umbels corymbose.
Vulgo—Pleurisy-root. Flux-root. Butterfly-weed.
Fl. Beginning of July, and after. *Fr. mat.*
Hab. Fence-rows, and old fields: frequent. About 2 feet high: flowers bright orange color.

Obs. The A. *decumbens*, of Willd. which Pursh has very properly; I think, reduced to a *variety* of this, is also frequent here. The stem is decumbent, and more hirsute; the leaves sublinear; and the flowers of a rather deeper orange than the other. The common names of this species indicate medicinal properties; and it has been very popular, as a remedy in Dysentery, Pleurisy, &c. It is, however, but little attended to of late; though the root is known to possess some cathartic powers,—and the powder is said to be escharotic. See *Barton's collections for a Mat. Med. U. S.* Some species of this genus afford a kind of *Flax*, (from the fibrous coating of the stem,) of a very soft, silky texture; of which I have seen beautiful samples, in the possession of Mr. Whitlow, the popular Lecturer on Botany.

105. GENTIANA. *Nutt. Gen.* 148.

[So named after *Gentius*, a king of Illyria; who is said to have first used it as a medicine.]

CAL. half 5, or 4 cleft. COR. base tubular, without pores. *Stam.* 5, or 4. CAPS. 1 celled, 2 valved.

G. CRINITA. *Ph.* Tetrandrous; branches elongated, 1 flowered; corolla 4 cleft, segments fimbriate.
Vulgo—Fringed Gentian.
Fl. Last of September, and after. *Fr. mat.* Middle of November.
Hab. Hilly woodlands, and old fields: frequent. 1 to 2 feet high: flowers sky-blue.

Obs. This elegant plant seems to be in the rear of Flora's train—being, in many instances, overtaken by the frost, and destroyed, before it ripens its seeds. It differs from its congeners in several respects, and presents one of those irregularities which embarrass the student of the *Sexual System*. It is constantly *Tetrandrous*; the calyx is 4 cleft, 4 angled, the angles alated; and the seeds, as remarked by that accurate observer, Mr. Nuttall, are curiously echinate, or hispid. Dr. Baldwin was of opinion that it ought to be separated from Gentiana; and Jussieu asks "*an genus dividendum?*" But as there are other irregular species, and the family, on the whole, seems to be a pretty natural one, I have thought it best to retain it here.

G. SAPONARIA. *Ell.* Flowers fasciculate, sessile, terminal and axillary; corolla ventricose, border connivent.
Vulgo—Soap-wort Gentian.
Fl. Middle of September. *Fr. mat.* Beginning of November.
Hab. Low grounds; borders of swampy rivulets: Patton's: frequent. 1 to 2 feet high: flowers blue.

Obs. This is also a handsome plant; the large blue flowers being clustered together at the top,—and sometimes in the axils of the leaves. The root is pretty bitter; and is occasionally used as a tonic.

106. CUSCUTA. *Nutt. Gen. Append.*

[A name of obscure derivation, and uncertain meaning.]

CAL. 5 or 4 cleft; fleshy at base. COR. 5 or 4 cleft. CAPS. 2 celled, circumcissed near the base.

C. AMERICANA. *Ell.* Flowers pedunculate, 5 cleft, in alternate and remote clusters.
Vulgo—Love-vine. Dodder.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Moist grounds: along rivulets, &c. frequent. 2 to 6 feet long: flowers yellowish white.

Obs. This remarkable plant is a slender, twining, leafless, fleshy, orange-colored vine; not very unlike brass, or copper wire, in appearance. It soon becomes parasitic,—losing its connection with the earth, and deriving its support from the vegetables to which it attaches itself. Although it embraces various plants, its favorites seem to be the *Mentha viridis*, and our two species of *Impatiens*.

C. EUROPÆA. *Sm. Cycl.* Flowers subsessile, often 4 cleft, and tetrandrous; stigmas acute.
Vulgo—Flax-vine. Dodder. Devil's gute.
Fl. Latter end of June. *Fr. mat.* Latter end of July.
Hab. Cultivated grounds, chiefly among *Flax*: frequent. 2 to 4 feet long: flowers yellowish white.

Obs. Resembles the foregoing, but smaller. It is a foreigner; and a very pernicious plant among flax,—often entangling and spoiling whole lots of it. The Farmers know it by the name of "*the vine*," in the flax. The German name is "*Flachsseide*," or *flax-silk*.

b. *Corolla pentapetalous.*

107. HEUCHERA. *Nutt. Gen.* 252.

[In honor of *John Henry Heucher*; a German Botanist.]

CAL. 5 cleft. COR. petals inserted on the calyx. CAPS. birostrate, bilocular, many-seeded.

H. AMERICANA. *Ell.* Viscid & pubescent; scapes naked, thyrsus elongated; leaves radical, on long petioles.
Synon. H. cortusa. *Mx.* H. viscida. *Ph.* *Vulgo*—Alum-root. American Sanicle.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Rich woodlands, fence-rows, &c. frequent. Scapes 2 to 4 feet high: flowers dusky red.

Obs. The root of this is highly astringent; and is one of the *Indian remedies* which have enjoyed some repute in the cure of ill conditioned ulcers. It is applied in the form of powder. There is no doubt but it may be useful in some cases. See *Barton's collections for a Mat. Med. U. S.*

B. FLOWERS SUPERIOR: UMBELLATE. *Corolla pentapetalous. Seeds mostly* 2.

a. *Involucrate.* † *Involucellate.*

108. SANICULA. *Nutt. Gen.* 258.

[Lat. *sanare*, to heal; from its supposed vulnerary qualities.]

Umbels subcapitate. *Flowers* of the disk abortive. *Fruit* muricate, with uncinate setæ.

S. MARILANDICA. *Ell.* Leaves digitate; leaflets oblong, incised: fertile flowers sessile, sterile pedicellate.
Vulgo—Maryland Sanicle. Black Snakeroot.
Fl. Latter end of May. *Fr. mat.* Beginning of September.
Hab. Woodlands: every where frequent. About 2 feet high: flowers greenish white.

109. DAUCUS. *Nutt. Gen.* 259.

[Etymology obscure: perhaps from the Gr. *daio*, to afford a meal, or food; being esculent.]

Involucre pinnatifid. *Umbels* many-rayed. *Fruit* oblong, ribbed; ribs ciliate with barbed bristles.

D. CAROTA. *Sm. Fl. Brit.* Fruit hispid; petioles nerved beneath; umbels concave, when in seed.
Vulgo—Wild Carrot.
Fl. Middle of July, and after. *Fr. mat.* Beginning of September, and after.
Hab. Pastures and roadsides; frequent. 2 to 4 feet high: flowers white.

Obs. This naturalized foreigner is extending rapidly through the country, and threatens to become a serious nuisance to our farmers. Being a *biennial*, however, it may be subdued, by vigilance and perseverance. The *esculent carrot*, of the gardens, is believed to the *same plant*, improved by culture. The wild carrot is said to be actively *diuretic*; and is quite popular as a remedy in calculous complaints. An infusion of the *seeds* is preferred; but when they cannot be had, the *root* is used.

110. SIUM. *Nutt. Gen.* 271.

[An ancient name, of obscure and uncertain etymology. See *De Theis.*]

Involucre and *involucels* many-leaved. *Petals* cordately inflected. *Fruit* subovate, laterally compressed.

S. LATIFOLIUM. *Sm.* Stem angular, sulcate; leaves pinnate; leaflets oblong-lanceolate, equally serrate.
Vulgo—Broad-leaved Water Parsnep.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September.
Hab. Borders of creeks, and swamps: along Brandywine: frequent. 3 to 5 feet high: flowers white.

Obs. We have two distinct varieties of this: one of which, Mr. Schweinitz says, approaches near the European plant. The other, and more common variety, is larger,—the stem more strongly channelled, the leaves composed of larger and more numerous leaflets, the terminal one often incised, and sometimes three lobed, or rather tricuspidate. Mr. S. calls this variety S. latifolium *americanum*. The name (*sulcatum,*) suggested by Dr. Persoon, seems to me to be better adapted to the *species*, than that of latifolium.

S. LONGIFOLIUM. *Ph?* Umbels nearly naked; leaflets linear-lanceolate, often falcate, mostly entire.
Fl. Middle of August. *Fr. mat.* Latter end of September.
Hab. Low, moist grounds: near Hiester's Tannery: frequent. 3 to 5 feet high: flowers white.

Obs. There seems to be some little confusion respecting this species. Mr. Schweinitz informs me it is "the plant so variously named,—by *Nuttall*, (Œnanthe ambigua; by *Torrey*, Pastinaca ambigua; and by *Pursh*, Sium longifolium." If so, Mr. Nuttall must be in error, with respect to his S. *lineare*. The stem, in my specimens, is striate, and not grooved. Both this and the foregoing are said to be poisonous,—especially to horned cattle.

111. CONIUM. *Nutt. Gen.* 261.

[Etymology obscure: See *Rees' Cyclopædia. Art.* CONIUM.]

Involucels halved, mostly 3 leaved. *Cal.* entire. *Fruit* ovate, gibbous. *Seeds* 5 ribbed; intervals flat.

C. MACULATUM. *Cyclop.* Stem much branched, grooved, smooth, spotted; leaves supradecompound.
Vulgo—Common Hemlock.
Fl. Last of June, and after. *Fr. mat.* Beginning of September.
Hab. Rich, shaded grounds: H. Fawcett's, &c. not common. 2 to 4 feet high: flowers white.

Obs. This is a foreigner; and only to be met with about old settlements. It is an active poison; and although nauseous to the taste, is not altogether a safe plant to have about houses. Its reputation, as a medicine, is well known to Physicians. The green herb is sometimes employed, in popular practice, in the form of cataplasm, for painful, ill conditioned ulcers.

†† *Involucels* 0: *Umbels simple.*

112. HYDROCOTYLE. *Nutt. Gen.* 255.

[Gr. *Hydor*, water, and *Kotyle*, a cup, or cavity; in allusion, perhaps, to the form of its leaves.]

CAL. 0. *Petals* entire, spreading. *Fruit* sub-orbicular, or reniform, laterally compressed.

H. AMERICANA. *Ell.* Leaves reniform-orbicular, slightly 7 lobed, crenate; umbels few flowered, sessile.
Vulgo—American Marsh-Penny-wort.
Fl. Beginning of July, and after. *Fr. mat.*
Hab. Swamps, and moist, shaded grounds: frequent. 6 to 12 inches long: flowers greenish white.

113. PANAX. *Nutt. Gen.* 254.

[Gr. *Pan*, all, and *Akos* a remedy; an imaginary *Panacea*, or universal medicine.]

Polygamous: Umbel pedunculate, globose. MALE, *Cal.* turbinate, entire, colored.
HERMAPH. *Cal.* 5 toothed, small, persistent. BERRY reniform-cordate, sometimes 3 seeded.

P. TRIFOLIUM. *Ph.* Root round-tuberous; leaves in threes, ternate and quinate; leaflets oblong-lanceolate.
Vulgo—Dwarf Ginseng.
Fl. Latter end of April. *Fr. mat.* Last of May.
Hab. Moist, low, shaded grounds; along rivulets: frequent. 6 to 9 inches high: flowers white.

Obs. This delicate little species is generally, if not constantly, *Dioicous*; and therefore apt to puzzle young Botanists. The *fruit* is triangular-ovate, and crowned with *three* spreading, persistent styles.

P. QUINQUEFOLIUM. *Ph.* Root fusiform; leaves in threes, quinate; leaflets oboval, acuminate, petiolate.
Vulgo—Ginseng.
Fl. Beginning of July. *Fr. mat.* Latter end of September.
Hab. Rich woodlands: Forks of Brandywine: Great Valley: rare. 1 to 2 feet high: flowers greenish white.

Obs. In some of my larger, rank specimens, the leaves are in *fours*, with folioles by *sevens*; the latter dilated, so as to be almost rhomboidal. The fruit of this species, when ripe, is a handsome, smooth, bright red berry. It is described as being *cordate;* but the perfect ones, so far as I have observed, are exactly

reniform,—resembling a red kidney-bean attached transversely to the pedicels. The root is frequently forked. The celebrity of this plant, and the extensive commerce which was formerly carried on, with its root, show how much more depends upon prejudice and fashion, in such matters, than upon intrinsic worth. Its virtues, of *any kind*, are certainly very trivial—though it is slightly stimulant, and not unpleasantly aromatic to the taste. Some years ago, this species occurred frequently in the rich woodlands about the forks of Brandywine, and in the Great Valley; but it is now becoming rather scarce,—and, together with some of our other coy native vegetables, will doubtless ere long totally disappear from this vicinity.

b. *Involucre mostly* 0. † *Involucellate.*

114. HERACLEUM. *Nutt. Gen.* 264.

[Dedicated to *Hercules;* who is said to have added a knowledge of Botany to his other exploits.]

Petals emarginately inflected. *Fruit* dorsally compressed, flat, striæ 3; margin membranaceous.

H. LANATUM. *Mx.* Villous; leaves trifoliate; folioles petiolate, large, subpalmate-lobed; seeds orbicular.
Vulgo—Cow Parsnep.
Fl. Latter end of May. *Fr. mat.* Last of July.
Hab. Bottom lands, along creeks: Brandywine: frequent. 4, to 6 or 8 feet high: flowers white.

Obs. This is rather the largest of our umbelliferous plants; though the Angelica atropurpurea closely approaches it, in magnitude. The common petioles (as occurs also in Angelica, Ligusticum, and some others,) are connected, at base, with remarkably large, membranaceous, ventricose stipules.

115. ANGELICA. *Nutt. Gen.* 270.

[Lat. "ab *angelica* virtute;" from its supposed extraordinary virtues.]

Fruit elliptic, dorsally compressed; ridges 3, dorsal acute; intervals grooved; margin alated.

A. ATROPURPUREA. *Willd.* Leaflets sublobed, subsessile, outmost pair coadunate; terminal often 3 lobed.
Synon. A. triquinata. *Big. Fl. Bost?* *Vulgo*—Common Angelica.
Fl. Latter end of May. *Fr. mat.* Middle of July.
Hab. Rich, low grounds: Forks of Brandywine: frequent. 4 to 6 feet high: flowers greenish white.

Obs. A powerfully aromatic plant; with very large decompound leaves, and large globose umbels. The hollow stem is often nearly the size of a man's arm, at base. Schœpf speaks of the root as being poisonous.

A. TRIQUINATA. *Nutt.* Lateral leaflets oblong-ovate, sharply serrate; terminal subrhomboid, subsessile.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Rich woodlands; and low meadow grounds: frequent. 2 to 5 feet high: flowers white.

Obs. This is undoubtedly Mr. Nuttall's A. triquinata; and as certainly, I think, *not* Dr. Bigelow's. Whether it be Michaux's plant of that name,—or the Ferula villosa, of Pursh, (which the Editors of the New York catalogue suppose to be synonymous,) I am unable to determine. It is usually about three feet high—sometimes four or five; the stem rather slender, and villous above,—as are the peduncles and umbels. The terminal leaflets can scarcely be called rhomboidal; but are rather oval, and tapering at base; and often petiolate.

116. CICUTA. *Nutt. Gen.* 276.

[A Latin name for the *hollow stem*, or internode of plants; applied to this Genus.]

Fruit subovate, laterally compressed, scored with 5 obtuse ridges, and 4 intermediate tuberculate grooves.

C. MACULATA. *Nutt.* Petioles membranaceous, 2 lobed at top; leaflets lanceolate; serratures mucronate.
Vulgo—Wild Parsnep. Spotted Cow-bane. Water Hemlock.
Fl. Last of June, and after. *Fr. mat.* Middle of September.
Hab. Low meadow grounds, and borders of rivulets: frequent. 4 to 6 feet high: flowers white.

Obs. The whole plant, in open grounds, is purplish and spotted; not so much so in the shade: the ripe seeds are highly aromatic. It is an active poison; and children have been destroyed by eating the root, in mistake, for that of Uraspermum, or Sweet Cicely.

117. MYRRHIS. *Nutt. Gen.* 277.

[An ancient Greek name; perhaps from *Myrrha*, an odoriferous gum.]

Fruit sublinear, solid and angular; ridges rather acute; apex attenuated, or crowned with the style.

M. CANADENSIS. *Nutt.* Leaves ternate; leaflets ovate, incisely and doubly serrate; peduncles by pa
Synon. Sison Canadense. *Muhl. Mx. Willd.* Chærophyllum canadense. *Ph. & Ell. Vulgo*—Hone-w
Fl. Last of May, till October. *Fr. mat.* Beginning of September, and after.
Hab. Woodlands; and shaded spots about houses: common. About 2 feet high: flowers white.

Obs. The common petioles are channelled; the channels scariosely marginate.

118. URASPERMUM. *Nutt. Gen.* 278.

[Gr. *Oura*, a tail, and *Sperma*, seed; the seeds being caudate.]

Fruit sublinear, solid, acutely angular, caudate, and without striæ; angles hispid; style subulate, persistent.

U. CLAYTONI. *Nutt.* Pubescent; leaves mostly biternate; terminal leaflets rhomboidal, acute.
Synon. Scandix dulcis. *Muhl.* Myrrhis claytoni. *Mx.* Chærophyllum claytoni. *Ph. & Ell. V.* Sweet Cicely.
Fl. Middle of May. *Fr. mat.* Middle of August.
Hab. Rich woodlands: Bath; Forks of Brandywine, abundant. 2 to 3 feet high: flowers white.

Obs. This is a remarkably aromatic plant, of a sweet, anisate odor; and, while young, thickly covered with soft canescent hairs. Children are fond of collecting the roots to chew, and sometimes commit serious mistakes, by getting those of Cicuta, and perhaps some other poisonous plants, in lieu of them. I have followed Mr. Nuttall, in separating this from the preceding; but, in my opinion, they are almost too closely allied to constitute distinct genera.

†† *Involucels mostly 0: or incomplete.*

119. SMYRNIUM. *Nutt. Gen.* 281.

[Gr. *Smyrna*, myrrh; from a fancied resemblance in the qualities of the plant.]

Petals acuminate, incurved. *Fruit* oblong, gibbous, angularly ribbed, subcompressed laterally.

S. CORDATUM. *Ph.* Root-leaves on long petioles, roundish-cordate, crenate; stem-leaves 3 lobed, or trifoliate.
Synon. S. trifoliatum. *Muhl.* and *Nutt.* Thapsia trifoliata. *Willd.* *Vulgo*—Heart-leaved Alexanders.
Fl. Beginning of May. *Fr. mat.*
Hab. Woodlands: every where common. About 1 foot high: flowers yellow.

S. AUREUM. *Ph.* Leaves biternate; leaflets oval-lanceolate, incised serrate; intermediate one mostly 3 lobed.
Synon. Thaspium aureum. *Nutt.* *Vulgo*—Golden Alexanders.
Fl. Latter end of May. *Fr. mat.*
Hab. Woodlands, and meadows: Bath woods: frequent. 1½ to 2 feet high: flowers deep yellow.

Obs. I cannot perceive the necessity of separating this from the preceding species.

C. FLOWERS INCOMPLETE.

120. CHENOPODIUM. *Nutt. Gen.* 284.

[Gr. *Chen, chenos*, a Goose, and *Pous, podos*, a foot; from a fancied resemblance in the form of its leaves.]

CAL. inferior, 5 parted, 5 angled. COR. 0. *Seed* 1, lenticular, covered by the closing calyx.

C. ALBUM. *Ell.* Leaves rhomboid-ovate, erose, entire at base; upper ones lanceolate-oblong, entire.
Vulgo—Lamb's Quarters. Goose-foot.
Fl. Latter end of July, and after. *Fr. mat.* Beginning of October.
Hab. About houses, gardens, and heaps of rubbish: common. 3 to 5 feet high.

Obs. A naturalized foreigner; and rather a troublesome weed in our gardens. There is a *variety* (C. viride. *Muhl.*) with deeper green leaves; but not specifically distinct. The young plants are sometimes boiled and eaten as "*greens*," so called.

121. ULMUS. *Nutt. Gen.* 287.

[An old Latin name, of obscure Etymology.]

CAL. 4 or 5 cleft. COR. 0. *Stam.* sometimes 4, and 8. *Samara* compressed, membranaceously alated.

U. AMERICANA. *Mx. Arb.* Leaves unequal at base; serratures uncinate-acuminate: flowers pediceliate.
Synon. U. mollifolia. *Marshall.* *Vulgo*—White Elm. American soft-leaved Elm. Weeping Elm.
Fl. Beginning of April. *Fr. mat.*
Hab. Low grounds, along Brandywine: John Taylor's: not common. 40 to 70 feet high.

Obs. I have rarely met with this stately and handsome tree, except on the moist flat lands near John Taylor's Mill, on Brandywine.

U. FULVA. *Mx.* Leaves subequal at base, very scabrous above, with a long acumination: flowers subsessile.
Synon. U. rubra. *Mx. Arb.* U. aspera. *Muhl.* U. americana. *Marshall.* *Vulgo*—Slippery Elm. Red Elm.
Fl. Beginning of April. *Fr. mat.*
Hab. Rich, low grounds: fence-rows; Brandywine: frequent. 20 to 40 feet high.

Obs. A more branching species than the foregoing; and readily distinguished by the roughness on the upper surface of the leaves. The inner bark of this contains a large portion of mucilage, which has been occasionally used in cases of dysentery; and is probably as good as any other mucilage. During the late war, it is said the military on the frontier found it to be a nutritious and grateful food for their horses, in times of scarcity of forage.

ORDER, TRIGYNIA.

122. VIBURNUM. *Nutt. Gen.* 290.

[A name borrowed from the Latin classics: etymology obscure.]

CAL. superior, small, 5 parted. COR. campanulate, 5 cleft. DRUPE 1 seeded.

V. PRUNIFOLIUM. *Mill.* Leaves roundish-oval, acute, serrulate; cymes 4 parted; fruit oblong, compressed.
Vulgo—Black Haw. Sloe.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Fence-rows, and thickets: frequent. 8, to 12 or 15 feet high: flowers white; fruit bluish black.

Obs. The fruit of this shrub becomes esculent by the action of frost. If the V. *pyrifolium* grows in this vicinity, I have not been fortunate enough to distinguish it from the above.

V. DENTATUM. *Marshall.* Leaves roundish-ovate, acute, dentate-serrate, plicate; fruit subglobose.
Vulgo—Arrow-wood.
Fl. Middle of June. *Fr. mat.* Middle of September.
Hab. Moist, low grounds; along rivulets: frequent. 8 to 12 feet high: flowers white; fruit dark blue.

V. ACERIFOLIUM. *Marshall.* Leaves 3 lobed, acuminate; cymes sub-umbellate; fruit oval, compressed.
Vulgo—Arrow-wood. Maple-leaved Viburnum.
Fl. Last of May. *Fr. mat.* Middle of September.
Hab. Woodlands, every where common. 2 to 5 feet high: flowers white; fruit black.

Obs. The stems of this slender shrub, when the pith is removed, afford good *fuse-sticks*, for blowing rocks; and are much used for that purpose.

123. SAMBUCUS. *Nutt. Gen.* 291.

[Gr. *Sambuke*, an ancient instrument of music; supposed to have been made of this shrub.]

CAL. superior, small, 5 cleft. COR. rotate-concave, 5 lobed. BERRY roundish, 3 seeded.

S. CANADENSIS. *Ell.* Leaves pinnate; leaflets oval, acuminate, sharply serrate; cymes 5 parted.
Synon. S. nigra. *Marshall.* *Vulgo*—Elder-bush.
Fl. Beginning of June. *Fr. mat.* Middle of August.
Hab. Fence-rows, thickets, &c. common. 6 to 10 feet high: flowers white; fruit dark purple, or black.

Obs. The flowers are frequently 6 and 7-androus. The inner bark of this shrub is much used by the people, as an ingredient in making ointments for dressing ulcers. An infusion of the leaves is also considered efficacious in expelling insects from cucumber, and other vines; and in destroying skippers in bacon. &c.—how correctly I am unable to say. It is rather a troublesome plant on our farms; the roots being very tenacious of life, and spreading rapidly along fence-rows,—unless extirpated with great care and vigilance.

124. RHUS. *Nutt. Gen.* 292.

[Supposed from the Gr. *Rhoos*, or *rhous*,—originally from the Celtic, *Rhudd*, red; in reference to the color of the fruit. *De Theis.* "Seu *Rheo* (Gr.) fluo, quia fluxus alvi dysentericos et muliebres sistat." *Boerh.*]

CAL. inferior, 5 parted. COR. petals 5. BERRY small, with 1 nuciform seed.

§ 1. *Leaves unequally pinnate.*

R. GLABRUM. *Marsh.* Glabrous; leaflets 8 to 10 pairs, lanceolate-oblong, serrate, glaucous beneath.
Vulgo—Common Sumach. Smooth Sumach. *Shumake.*
Fl. Last of June. *Fr. mat.* Last of September.
Hab. Sterile old fields, fence-rows, &c. common. 3 to 10 feet high: flowers yellowish green; fruit red.

Obs. Mr. Elliott says the flowers are "all fertile;" and Michaux and others describe them as being "dioicous"—but so far as I have observed, Marshall is more correct in saying "the flowers are hermaphrodite and female on separate plants." The hermaphrodite flowers, however, as Marshall correctly adds, are barren; although, when they first open, they appear to have perfect germs. The thyrsus of female flowers is smaller and more compact than that of the infertile plant. This is a very lactescent species: the ripe berries are covered with a grey pounce, which is highly acid. The branches are extensively used in tanning morocco leather.

R. COPALLINUM. *Marsh.* Dioicous; leaflets 4 to 6 pairs, nearly entire; common petiole winged, jointed.
Vulgo—Mountain Sumach. Lentiscus-leaved Sumach.
Fl. Middle of July: *Fr. mat.* Beginning of October.
Hab. Barrens; west of the Grove tavern: frequent. 3 to 8 feet high: flowers yellowish green.

R. VERNIX. *Ph.* Dioicous; very glabrous; leaflets 3 to 5 pairs, oval, entire, abruptly acuminate.
Synon. R. toxicodendron vernix. *Marsh.* *Vulgo*—Poison Sumach. Swamp Sumach. Poison Ash.
Fl. Beginning of June. *Fr. mat.*
Hab. Along rivulets: Barrens: not common. 8 to 15 feet high: flowers greenish; fruit white, smooth.

Obs. This was formerly supposed to be the true Varnish-tree, of Japan; but its identity with that is doubted, at present. It is reputed poisonous—though I have often handled it freely, and always with impunity. I may, however, make the same remark relative to the R. *radicans*; which is notoriously poisonous to some persons.

§ 2. *Leaves ternate.*

R. RADICANS: *Ell.* Dioicous; leaflets petiolate, ovate, glabrous, entire, or tooth-angled; stem radicant.
Synon. R. toxicodendron. *Var. a. Mx. Var.* vulgare. *Ph.* *Vulgo*—Poison-vine. Poison-oak.
Fl. Beginning of June. *Fr. mat.* Middle of October.
Hab. Woodlands, and old fence-rows: frequent. Climbing 10 to 40 feet high: flowers greenish; fruit brown.

Obs. This is very poisonous to some persons; but not generally. For an account of its effects, and medical properties, See *Barton's collections.* Dr. W. P. C. Barton, in *Fl. Phil.* gives the R. *toxicodendron*, of *Ell.* as growing common near the City: but Dr. Baldwin expressed the opinion to me that it was not to be found in Pennsylvania.

125. STAPHYLEA. *Nutt. Gen.* 293.

[Gr. *Staphyle*, a bunch, or cluster: alluding to the manner of growth of the fruit.]

CAL. inferior, 5 parted. COR. 5 petalled. CAPS. 2 or 3, inflated, connate. *Nuts* mostly 2, globose.

S. TRIFOLIA. *Ell.* Leaves trifoliate; racemes pendulous; petals ciliate below.
Vulgo—Bladder-nut.
Fl. Middle of May. *Fr. mat.* Latter end of September.
Hab. Rich woodlands; Hance's, near Brandywine: not common. 5 to 12 feet high: flowers white.

126. SAROTHRA. *Nutt. Gen.* 295.

[Gr. *Sarothron*, a broom, or besom; from a fancied resemblance in the habit of this plant.]

CAL. 5 parted, connivent. COR. petals 5, linear-oblong. CAPS. oblong, acute, colored, 1 celled, 3 valved.

S. HYPERICOIDES. *Nutt.* Branches setaceous, erect, subtrichotomous; leaves acerose, minute, appressed.
Synon. S. gentianoides. *Willd. Muhl.* and *Ell.* Hypericum sarothra. *Mx.* and *Ph.* *Vulgo*—Ground Pine.
Fl. Latter end of July, and after. *Fr. mat.*
Hab. Dry, sandy fields, and roadsides: Barrens: common. 4 to 8 inches high: flowers yellow.

Obs. The number of *stamina* is not constant in this plant; varying from 5 to 6, 8, or 10.

ORDER, PENTAGYNIA.

127. ARALIA. *Nutt. Gen.* 297.

[A name of uncertain derivation; supposed, by *De Theis*, to be of Canadian origin.]

Umbellulate, with involucels: CAL. superior, 5 toothed. COR. 5 petalled. BERRY 5 celled, 5 seeded.

A. NUDICAULIS. *Ph.* Nearly stemless, one-leafed; leaf triquinate; scape naked, about 3 umbelled.
Vulgo—Wild Spikenard. Sarsaparilla.
Fl. Latter end of May. *Fr. mat.* Middle of July.
Hab. Rich, rocky woodlands: Bath; Brandywine: frequent. About 2 feet high: flowers greenish white.

Obs. The root of this is a popular medicine; used as a detergent, in diet-drinks, &c.—but it is questionable whether it really possess much virtue.

A. RACEMOSA. *Ph.* Divaricately branching; leaves decompound; peduncles axillary, branching, umbellate.
Vulgo—Spikenard. Wild Liquorice.
Fl. Middle of July, and after. *Fr. mat.* Middle of September.
Hab. Rich woodlands: along the Brandywine: not common. 3 to 6 feet high: flowers greenish white.

Obs. This appears to be native in our woods; but is not common. It is cultivated, in gardens, for the sake of the root and berries—which are often used in tincture as a stomachic: but the principal *virtue* of the medicine probably lies in the alcohol!

128. LINUM. *Nutt. Gen.* 299.

[Gr. *Linon*, or Celtic *Llin*; the name for flax, or thread, in those languages.]

CAL. 5 parted, persistent. COR. petals 5, unguiculate. CAPS. globose, 10 valved, 10 celled. *Seeds* solitary.

L. VIRGINIANUM. *Willd.* Panicle filiform; flowers remote; leaves scattered, lanceolate, radical ones oval.

Synon. L. virginicum. *Ph.*
Vulgo—Wild Flax. Virginian Flax.
Fl. Beginning of July, and after.
Fr. mat. Last of August.
Hab. Old fields, and thin woodlands: Barrens, &c. frequent. 1 to 2 feet high: flowers yellow.

CLASS VI. HEXANDRIA.

ORDER, MONOGYNIA.

A. Flowers calyculate.

129. FLOERKEA. *Nutt. Gen.* 327.
[Dedicated to a German Botanist, of the name of *Floerke.*]

Cal. 3 leaved. Cor. petals 3, small. *Style* bifid. *Utriculus* mostly twin, roundish, verrucose.

F. uliginosa. *Muhl.* Leaves alternate, pseudo-pinnate; peduncles axillary, long, 1 flowered.
Synon. F. palustris. *Nutt.* F. lacustris. *Persoon.* F. proserpinacoides. *Willd.* Nectris pinnata. *Ph.*
Fl. Beginning of May.
Fr. mat. Beginning of June.
Hab. Miry, shaded places; Forks of Brandywine: frequent. 8 to 12 inches high: flowers white.

Obs. This is a very tender, succulent plant, and disappears early in the season. By the latter end of June it is difficult to find a vestige of it. When I first detected it (May, 1818,) I made out a pretty full description of it,—as I could find none that was satisfactory in my books. Mr. Nuttall, however, soon afterwards furnished a very good one; which supersedes the necessity of giving mine. There was, also, about that time, a tolerable account of it (though couched in a strange jargon,) published by M. Rafinesque, in the first volume of Silliman's Journal of Science.

130. TRADESCANTIA. *Nutt. Gen.* 303.
[In honor of two English Botanists, Father and Son, named *John Tradescant.*]

Cal. 3 leaved. Cor. 3 petalled. *Filaments* villous, with jointed hair. Caps. 3 celled, 3 valved.

T. virginica. *Ell.* Erect; leaves long, lanceolate, channelled; flowers terminal, umbellate-clustered.
Vulgo—Virginian Spider-wort.
Fl. Middle of May, and after.
Fr. mat. Latter end of June.
Hab. Moist, low grounds; meadows, &c. frequent. 12 to 18 inches high: flowers purplish blue.

Obs. A succulent plant, and full of slimy mucilage: probably worthy of notice, as an emollient. After flowering, the pedicels are curiously parted into two ranks, and deflected, or recurved on each side, over the base of the two involucres. It appears frequently to fail in perfecting its fruit.

131. CAULOPHYLLUM. *Nutt. Gen.* 305.
[Gr. *Kaulos*, a stem, and *Phyllon*, a leaf; the stem resembling a petiole, or leaf-stalk.]

Cal. 3 to 6 leaved. Cor. 6 petalled; with a sub-reniform *Nectary* on each claw. Drupe stipitate, 1 seeded.

C. thalictroides. *Mx.* Glabrous; leaves supradecompound; leaflets oval, terminal one 3 lobed.
Synon. Leontice thalictroides. *Willd.*
Vulgo—Blue Cohosh. Pappoose-root.
Fl. Last of April.
Fr. mat. Middle of August.
Hab. Ogden's woods, near Ezra Cope's: rare. 1 to 2 feet high: flowers yellowish green; fruit deep blue.

Obs. I understand this plant used to be met with, frequently, along the Brandywine; but I looked in vain for it, for several years. It was however detected this season, (1825,) near E. Cope's, by Messrs. Eusebius Townsend, and Thomas Babb—but is very rare; not more than three or four specimens having been found. This is one of the plants formerly in great repute, as a medicine, among the Indians.

132. PRINOS. *Nutt. Gen.* 308.
[Supposed to be from the Gr. *prio*, to saw; in allusion to its serrated leaves.]

Cal. mostly 6 cleft. Cor. monopetalous, sub-rotate, mostly 6 parted. Berry 6 seeded; *seeds* nuciform.

P. verticillatus. *Ph.* Polygamous; leaves oval, acuminate, serrate; flowers axillary, aggregated.
Synon. P. Gronovii. *Mx.*
Vulgo—Black Alder Winter-berry.
Fl. Latter end of June.
Fr. mat. Beginning of October.
Hab. Low, swampy grounds; thickets, &c. frequent. 6 to 8 feet high: flowers greenish white; berries red.

Obs. Michaux has placed this shrub in *Dioecia*; but it is really Polygamous. The flowers are variable, especially the males; being sometimes 5-androus, and often 7-androus; with the segments of the calyx and

corolla corresponding. The bark of this plant is a celebrated popular remedy for ulcers, &c. used in decoction, externally and internally. I cannot, however, help questioning much of its *reputed* excellence; though it may, occasionally, be found useful.

B. FLOWERS SPATHACEOUS.

133. ALLIUM. *Nutt. Gen.* 312.

[Etymology obscure: *De Theis* says, from the Celtic, *All*,—which signifies hot, acrid, burning.]

Spathe many-flowered. *Umbel* clustered. COR. 6 parted, spreading. CAPS. superior, 3 celled, 3 valved.

A. VINEALE. *Sm. Fl. Brit.* Stem with round leaves, bulbiferous; stamens tricuspidate.
Vulgo—Common Garlic. Wild Garlic. Field Garlic. Crow-Garlic.
Fl. Latter end of June. *Fr. mat.* Middle of August.
Hab. Grain-fields, pastures, &c. common. 2 to 3 feet high: flowers purple.

Obs. The umbels are often proliferous. This is a naturalized foreigner; and was formerly so abundant in this vicinity as to be quite a nuisance. It not only spoiled the taste of our milk, butter, cheese, &c. but seriously injured our flour, and rendered the manufacture of it difficult. Our best farmers, however, have now nearly subdued it, by the improvement of their land, and a judicious rotation of crops.

A. CANADENSE. *Willd.* Scape naked, terete; leaves flat, linear; head bearing bulbs.
Vulgo—Meadow Garlic.
Fl. Middle of June. *Fr. mat.*
Hab. Moist meadows; woodlands: frequent. About 1 foot high: flowers pale red.

134. HYPOXIS. *Nutt. Gen.* 314.

[Gr. *Hypo*, underneath, and *Oxys*, sharp; the base of the capsule being pointed.]

Spathe, 2 valved. COR. superior, 6 parted. CAPS. long, narrowed at base, 3 celled. *Seeds* roundish.

H. ERECTA. *Ell.* Hairy; scape 1 to 4 flowered, shorter than the grass-like, subulate leaves; root bulbous.
Synon. H. carolinensis. *Mx.* H. graminea? *Ph.* *Vulgo*—Upright Star of Bethlehem.
Fl. Middle of May till October. *Fr. mat.* Latter end of June, and after.
Hab. Open, grassy woodlands: very common. 4 to 8, or 10 inches high: flowers yellow.

Obs. Pursh has probably made two species out of the varieties of this plant; and has noticed a medical virtue in the root, which had even escaped the credulous industry of Schœpf.

C. FLOWERS NAKED: *Inferior.*

135. ORNITHOGALUM. *Nutt. Gen.* 323.

[Gr. *Ornis, ornithos*, a bird, and *Gala*, milk; an ancient, whimsical name.]

COR. 6 petalled, persistent. *Filaments* dilated at base. CAPS. roundish, angled, 3 celled.

O. UMBELLATUM. *Ph.* Corymb few flowered; peduncles longer than the bractes; filaments subulate.
Vulgo—Ten-o'clock. Twelve-o'clock. Star of Bethlehem. *Dame d'onze heures*, of the French.
Fl. Latter end of May. *Fr. mat.* Latter end of June.
Hab. Cultivated grounds: Green-tree Farm, &c. frequent. Scapes 6 or 8 inches high: flowers white.

Obs. This foreigner has escaped from our Gardens, and has become a grievous nuisance on some farms. The Green-tree farm, in this Borough,—that at West-town School,—and several around Birmingham Meeting house, are much injured by it. It is wonderfully tenacious of life; and although it perfects but few seeds, the bulbous roots propagate laterally with great rapidity. In many places it seems to have exclusive possession of the soil, during the spring season—though the leaves die in the latter end of June, and a crop of grass will then succeed it. Some farmers sow salt on it, to induce cattle to eat it; but they are not fond of it. Others have ploughed up the bulbs, in autumn, and turned sheep on them, to eat them, during the winter. But all these remedies fall short of their object. The plant continues to increase and multiply. Trench ploughing has been proposed, I think, by that venerable agriculturist, Judge Peters; but I know not whether it has yet been tried. An effectual and practicable mode of extirpating this pest, is certainly a great *desideratum*; and will entitle the discoverer to the gratitude of the farming community.

136. LILIUM. *Nutt. Gen.* 324.

[Celtic *Li*, white. *De Theis.* Seu "a *Leios* (Gr.) lævis & politus, quia ejus folia sunt polita." *Boerh.*]

COR. campanulate; petals 6, with a longitudinal nectariferous line. CAPS. valves connected by latticed hair.

L. PHILADELPHICUM. *Ph.* Leaves verticillate, lanceolate-linear; flowers erect; petals unguiculate.
Vulgo—Wild Lily. Philadelphia Lily.
Fl. Latter end of June. *Fr. mat.*
Hab. Woodlands, and borders of thickets; Bath: frequent. 2 to 3 feet high: flowers reddish orange.

L. CANADENSE. *Ph.* Leaves remotely verticillate; peduncles long; flowers nodding; petals lanceolate.
Vulgo—Wild Lily. Canadian Lily.
Fl. Beginning of July. *Fr. mat.*
Hab. Woodlands and meadows: frequent. About 2 feet high: flowers yellowish orange.

Obs. This is a handsome species; the flowers are generally by two's or three's; but I have seen as many as *seven* on a single plant.

L. SUPERBUM. *Ph.* Glabrous; lower leaves verticillate, the rest scattered; flowers in a pyramidal raceme.
Vulgo—Superb Lily. Turk's Cap.
Fl. Latter end of July. *Fr. mat.*
Hab. Moist clay grounds: Wilmington road. 3 to 5 feet high: flowers orange-scarlet.

Obs. This truly Superb Lily is not strictly a plant of this immediate vicinity; as I have not met with it nearer than the alluvial land, towards Wilmington,—about 10 or 11 miles south of West-Chester. It would be very desirable to have this splendid plant introduced into our gardens; but it is said to dwindle into comparative insignificance, when removed into an ungenial soil.

137. ERYTHRONIUM. *Nutt. Gen.* 326.

[Gr. *Erythros*, red; in allusion to the purple stains, or spots, on the leaves.]

COR. campanulate; petals 6, the 3 inner ones with a callous denture on each side, near the base.

E. AMERICANUM. *Ell.* Style clavate, 3 angled; leaves 2, oblong-lanceolate, spotted, involute at point.
Synon. E. lanceolatum. *Ph.* E. Dens canis. *Mx.* *Vulgo*—Dogs-tooth Violet. Adder's tongue.
Fl. Middle of April. *Fr. mat.* Latter end of May.
Hab. Meadows, and low shaded grounds: frequent. 6 to 9 inches high: flowers yellow.

Obs. The seeds are ovate, and acuminate; but are incurved, so as to appear somewhat *lumulate*. This plant is a frequent companion of the *Panax trifolium*, in shaded places.

138. UVULARIA. *Nutt. Gen.* 327.

[Lat. *Uvula*, diminutive of *Uva*, a grape; from a fancied resemblance in the inflorescence. *De Theis.*]

COR. petals 6, erect, a cavity in the claw of each. *Fil.* short. *Stig.* 3, long. CAPS. 3 angled, 3 celled.

U. PERFOLIATA. *Ell.* Leaves perfoliate, elliptic, acute; petals tuberculate within; anthers awned.
Vulgo—Perfoliate Bell-wort.
Fl. Middle of May. *Fr. mat.* Middle of August.
Hab. Woodlands, and meadows: common. 9 to 18 inches high: flowers pale yellow.

Obs. The leaves, so far as I have observed, are acute; and not *obtuse*, as stated by Pursh, & others. Capsule turbinate, trigonous, truncate, the angles sulcate.

U. SESSILIFOLIA. *Ell.* Leaves sessile, lanceolate-oval, glaucous beneath; capsule oval, sub-stipitate.
Vulgo—Sessile-leaved Bell-wort.
Fl. Middle of May. *Fr. mat.* Middle of August.
Hab. Rich woodlands: frequent. About 1 foot high: flowers pale yellow.

Obs. The stem of this species is pretty constantly bifid at summit—one of the branches bearing one flower, and the other none; as is well remarked by Michaux and Elliott. Capsule oval, triquetrous, acute at each end; angles prominent and sharp.

139. SMILACINA. *Nutt. Gen.* 330.

[Fabricated from the generic name, *Smilax*; and decidedly condemned by Dr. Smith, *Cyclopæd.*]

COR. 6 parted, spreading. *Filam.* divergent, inserted at the base of the corolla-segments. BERRY globose.

S. RACEMOSA. *Ell.* Leaves sessile, oblong-oval, acuminate; flowers in a terminal racemose panicle.
Synon. Convallaria racemosa. *Willd. Muhl. Mx.* &c. *Vulgo*—Wild Spikenard.
Fl. Middle of May. *Fr. mat.* Middle of September.
Hab. Fence-rows, meadow banks, woodlands, &c. frequent. 1 to 2 feet high: flowers yellowish white.

Obs. The berries are handsomely speckled with red, when ripe; and are not ungrateful to the taste.

S. CANADENSIS. *Ph.* Tetrandrous; leaves 2, rarely 3, cordate-oblong, subsessile; raceme simple, terminal.
Synon. Convallaria bifolia. *Willd. Muhl. Mx.* &c.
Fl. Latter end of May. *Fr. mat.*
Hab. Along a shaded rivulet N. W. of Geo. Vernon's: rare. 4 to 6 inches high: flowers white.

Obs. This little plant grows plentifully along a rivulet below George Vernon's meadow, on the Barrens—where it was detected by the late Dr. Vernon, whilst a student with me: but I have never met with it elsewhere, in all this region of Pennsylvania.

140. POLYGONATUM. *Nutt. Gen.* 331.

[Gr. *Poly*, much, and *Gonu*, a joint; in reference to the numerous joints, or knots, of the root.]

Cor. 6 cleft, cylindric. *Filam.* inserted near the summit of the tube. Berry 3 celled; cells 2 seeded.

P. BIFLORUM. *Ell.* Leaves alternate, sessile, elliptic-lanceolate; peduncles mostly 2 flowered.
Synon. P. angustifolium. *Ph.* *Vulgo*—Two-flowered Solomon's Seal.
Fl. Latter end of May. *Fr. mat.*
Hab. Rich woodlands: Bath, &c. frequent. 12 to 18 inches high: flowers greenish white.

Obs. The name, *Solomon's seal*, has been given to this, and the other species, in allusion to the scars on the roots, (left by the stems of successive years,) which somewhat resemble the impressions of a seal.

P. MULTIFLORUM. *Ell.* Leaves alternate, amplexicaul, oblong-oval; peduncles many flowered.
Synon. Convallaria multiflora. *Willd.* *Vulgo*—Many-flowered Solomon's Seal. Wild Asparagus.
Fl. Beginning of June. *Fr. mat.* Latter end of August.
Hab. Rich fence-rows, and ditch banks: frequent. 2 to 4 feet high: flowers greenish white.

Obs. I have no doubt this is specifically distinct from the foregoing. See *Elliott.* The young shoots are said to be a tolerable substitute for Asparagus.

D. Flowers Incomplete.

141. ORONTIUM. *Nutt. Gen.* 333.

[An ancient name; supposed, by *De Theis*, to be derived from the river *Orontes*.]

Spadix cylindric, covered with florets. Cor. 6 petalled, naked. *Style* 0. Utriculus globose, 1 seeded.

O. AQUATICUM. *Ell.* Leaves radical, lanceolate-ovate, very entire; spadix on a long scape.
Vulgo—Golden club. Never-wet. Floating Arum.
Fl. Latter end of April. *Fr. mat.* Last of July.
Hab. Pond, near the Forks of Brandywine: rare. 12 to 20 inches high: flowers yellow.

142. ACORUS. *Nutt. Gen.* 334.

[Gr. *a*, privative, and *Kore*, the pupil of the eye; being once supposed good for diseased eyes.]

Spadix subcylindric, covered with florets. Cor. 6 petalled, naked. *Style* 0. Caps. 3 celled.

A. CALAMUS. *Ell.* The spadix seated laterally on a long, ensiform, leaf-like scape.
Vulgo—Calamus. Sweet Flag.
Fl. Latter end of May. *Fr. mat.* Latter end of August.
Hab. Swamps, and wet places, in meadows: frequent. About 3 feet high: flowers greenish yellow.

Obs. The whole plant, but especially the root, is an aromatic stimulant—popular as a remedy for colic, &c. and deservedly so. I am convinced it is not indigenous in this vicinity; whatever it may be in other parts of the United States.

143. JUNCUS. *Nutt. Gen.* 335.

[Lat. *jungo*, to join; from its use in tying, or binding things together.]

Cal. inferior, 6 parted, equal, persistent. Cor. 0. *Stig.* 3. Caps. 1 celled, 3 valved. *Seeds* numerous.

§ 1. *Stem naked.*

J. EFFUSUS. *Ell.* Cespitose; stem upright, terete; panicle lateral, effused; flowers oblong; triandrous.
Vulgo—Common Rush. Rush grass. Soft Rush. Small Bog, or Bull-Rush.
Fl. Middle of June. *Fr. mat.* Latter end of July.
Hab. Swamps; and moist, low grounds: common. 2 to 3 feet high.

Obs. Rather a troublesome plant—forming numerous *tussocks* in all our low moist grounds, if neglected for a few years.

§ 2. *Stem leafy.*

J. TENUIS. *Ell.* Leaves linear-subulate, channelled; corymb terminal, dichotomous, shorter than the bractes.
Synon. J. bicornis. *Mx.* and *Ph.*
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab. Low grounds, around ponds; Wollerton's, &c. frequent. About 1 foot high.

Obs. I have specimens, from the Barrens, apparently of this species, of small growth, in which the long bractes are wanting.

J. DICHOTOMUS. *Ell.* Leaves sub-terete, channelled inside; panicle dichotomous; flowers sessile.
Synon. J. bufonius. *Mx?*
Fl. Beginning of July, and after. *Fr. mat.*
Hab. Moist, low grounds; along pathways, &c. frequent. 12 to 18 inches high.

Obs. This approaches the foregoing, in habit; but is clearly distinct.

J. BUFONIUS. *Ell.* Stem dichotomous; leaves angled, subulate; flowers solitary, sessile.
Fl. Latter end of June. *Fr. mat.*
Hab. Low grounds: around Wollerton's pond: frequent. 2 to 6 inches high.

J. SYLVATICUS. *Muhl.* Leaves with knot-like joints; panicle decompound; flowers triandrous.
Synon. J. acuminatus. *Mx.* and *Ell?*
Fl. Beginning of June, and after. *Fr. mat.*
Hab. Meadows, and moist, low grounds: frequent. 1 to 2 feet high.

Obs. This species seems to be subject to a sort of monstrosity in the fructification, which gives it the appearance of being *viviparous*. Perhaps it is really so.

J. MARGINATUS. *Muhl.* Stem compressed; leaves flat; corymb longer than the bractes; triandrous.
Synon. J. aristulatus? *Mx.*
Fl. Latter end of July. *Fr. mat.* Latter end of September.
Hab. Moist, shaded grounds: Patton's woods: frequent. 1½ to 2 feet high.

J. BULBOSUS. *Muhl.* Stem undivided; leaves linear, channelled; corymb shorter than the bractes.
Fl. Latter end of June. *Fr. mat.* Last of August.
Hab. Dry, sterile hills; Barrens, &c. frequent. 12 to 18 inches high.

J. CAMPESTRIS. *Ell.* Leaves grass-like, hairy; spikelets pedunculate, intermediate one sessile.
Vulgo—Field Rush.
Fl. Middle of April. *Fr. mat.* Middle of June.
Hab. Open, dry woodlands, and fields: common. 6 to 12, or 18 inches high.

ORDER, TRIGYNIA.

144. MELANTHIUM. *Nutt. Gen.* 343.

[Gr. *Melas*, black, and *Anthos*, a flower; the flowers being dark colored.]

Polygamous: CAL. 0. COR. rotate; petals 6, unguiculate. CAPS. 3 celled, trifid. *Seeds* flat, winged.

M. VIRGINICUM. *Ell.* Leaves linear-lanceolate; panicle pyramidal; petals oval, subhastate, flat.
Fl. Middle of July. *Fr. mat.*
Hab. Borders of swamps; Bath woods: frequent. 3 to 4 feet high: flowers yellowish white, finally dark.

Obs. The lower flowers are mostly males, with abortive germs; the upper ones hermaphrodite.

145. VERATRUM. *Nutt. Gen.* 345.

["Quasi *Vere atrum;* quia habet radicem nigram, vel quia humorem atrum expurgat." *Boerh.*]

Polygamous: CAL. 0. COR. deeply 6 parted, spreading; segments sessile. CAPS. 3, united.

V. VIRIDE. *Ell.* Leaves broad-oval, plicate; racemes paniculate; corolla-segments oval, acute.
Synon. V. album. *Mx.* *Vulgo*—Hellebore. White Hellebore. Indian Poke.
Fl. Middle of May. *Fr. mat.* Beginning of July.
Hab. Swamps, and low grounds: frequent. 2 to 4 feet high: flowers yellowish green.

Obs. This plant is sometimes used, in infusion, as a *wash* for cutaneous affections; and is considered to be otherwise medicinal—but I am unacquainted with its virtues. The fresh root has been recommended for destroying cockroaches.

146. HELONIAS. *Nutt. Gen.* 346.

[Etymology obscure: *De Theis* supposes from the Gr. *Helos*, a marsh; where some species grow.]

CAL. 0. COR. petals 6, sessile, flat. CAPS. 3 horned, 3 celled; cells few-seeded.

H. DIOICA. *Ell.* Root præmorse; leaves lanceolate, radical ones spathulate; raceme spiked, dioicous.
Synon. Veratrum luteum. *Willd. Muhl. Nutt.* *Vulgo*—Blazing Star. Devil's bit.
Hab. Rich woodlands, and meadows: frequent. 1 to 2, (Females 3 or 4) feet high: flowers white.

Obs. I have occasionally found perfectly *Hermaphrodite* flowers on the male racemes. Indeed, I am pretty well satisfied from my observations, that there is a constant effort, or tendency in the flowers of a plants, which are not hermaphrodite, to become so. The root of this is considerably bitter; and is a pop lar stomachic.

H. ANGUSTIFOLIA. *Ell.* Leaves long, linear, acute; raceme oblong, lax; capsules oblong; seeds linear.
Fl. Beginning of August? *Fr. mat.*
Hab. Dry hills: Buck Run: rare. About 2 feet high: flowers greenish white.

Obs. I have not met with this species in the immediate vicinity of West-Chester. I am indebted for my specimen to Dr. Seal, who collected it on a dry, laurel hill, near Abishai Clark's—about ten miles from this place.

147. GYROMIA. *Nutt. Gen.* 351.

[Gr. *Gyros*, a circle; in reference to its verticillate leaves.]

CAL. 0. COR. deeply 6 parted, revolute. *Stig.* 3, sessile, long, recurved. BERRY 3 celled; cells 5 or 6 seeded.

G. VIRGINICA. *Nutt.* Leaves in a verticil on the stem, 5 to 9; at summit mostly in 3's; flowers terminal.
Synon. Medeola virginica. *Willd. Mx. Muhl. Ell.* &c. *Vulgo*—Cucumber root. Indian Cucumber.
Fl. Latter end of May. *Fr. mat.* Beginning of September.
Hab. Shaded, moist grounds: frequent. 1 to 2 feet high: flowers greenish yellow; berries dark purple.

Obs. The root is a delicate, white, oblong tuber, somewhat resembling the *cucumber*, in flavor; and said to be diuretic in its properties. The flowers are nodding; but when in fruit, the peduncles become erect.

148. TRILLIUM. *Nutt. Gen.* 352.

[Lat. *Trilix*, triple; alluding to the prevalence of the number *three*, in the leaves, and other parts.]

CAL. 3 leaved, spreading. COR. 3 petalled. *Stigmas* 3, sessile, recurved. BERRY 3 celled.

T. PENDULUM. *Nutt.* Leaves rhomboidal, acuminate, subsessile; flower pendulous; petals flat, ovate.
Synon. T. cernuum. *Ph. Bigelow. Bart. Fl. Phil.* &c. *Vulgo*—Three-leaved Night-shade.
Fl. Middle of May. *Fr. mat.* Middle of August.
Hab. Moist, shaded grounds; Bath, &c. frequent. About 1 foot high: flowers white; berries purple.

Obs. Our northern botanists seem to have been led into a mistake, relative to this plant, by adopting Pursh's error: and even Mr. Elliott has not altogether escaped its influence—as appears by the following note of my lamented friend, Dr. Baldwin; which note he left in my copy of Elliott's Sketch, during his last visit to me, in 1818.

"The *Trillium cernuum*, of Pursh, and other modern botanists, is entirely distinct from Catesby's plant; which has only been found in the Southern States. The Pennsylvanian plant is the T. *pendulum*, of the late Dr. Muhlenberg. That sagacious botanist had never seen the *true cernuum*, until sent to him by me, in 1812. Mr. Elliott has, unfortunately, by copying the error of Pursh, rendered confusion worse confounded. The *cernuum* of Pursh, is the *pendulum*, of Elliott,—which, I suspect, is not found in the southern states, at all. The *cernuum*, of Elliott, is probably a new species; (or it may be a variety of the *pendulum*, extending to Carolina—compare the fruit, &c.) while he has unfortunately given the name of *Catesbæi* to the true one. Mr. Nuttall appears to be correct."

149. RUMEX. *Nutt. Gen.* 353.

[Lat. *Rumex*, a pike, or spear; from the shape of the leaves of some species.]

CAL. 3 leaved. COR. 3 petalled, connivent, persistent. *Stigmas* multifid. *Seed* 1, triquetrous.

R. CRISPUS. *Ell.* Petals entire, all dorsally graniferous; leaves lanceolate, curled, acute.
Vulgo—Sour Dock. Curled Dock.
Fl. Latter end of May, and after. *Fr. mat.* July, and after.
Hab. Pastures, and meadows; common. 2 to 3 feet high: flowers green.

Obs. A naturalized foreigner: and a troublesome plant, in our meadows, &c. The radical leaves are often collected, in the spring of the year, and boiled for "greens;" affording a wholesome vegetable dish for the table. The root is said to have been found an useful application to cancerous sores; but I have no knowledge of its efficacy.

R. OBTUSIFOLIUS. *Sm. Fl. Brit.* Outer petal chiefly dentate, and graniferous; radical leaves cordate, obtuse.
Vulgo—Common broad-leaved Dock. Bitter Dock.
Fl. Latter end of June, and after. *Fr. mat.* August, and after.
Hab. Grass lots, gardens, and meadows: frequent. 2 to feet 4 high.

Obs. An obnoxious and troublesome foreign weed; but not so common as R. crispus.

R. ACETOSELLA. *Ell.* Dioicous; petals not graniferous; leaves lanceolate-hastate.
Vulgo—Sheep Sorrel. Field Sorrel.
Fl. Middle of May, and after. *Fr. mat.* August, and after.
Hab. Sandy, sterile fields; about old stumps, &c. common. 6 to 12 inches high: flowers yellowish green.

Obs. The racemes after flowering, often assume a red color. The whole plant is highly acid; and may be useful, as is said, in scurvy, and some other forms of disease.

ORDER, POLYGYNIA.

150. ALISMA. *Nutt. Gen.* 356.

[Etymology obscure: *De Theis* says, from the Celtic *Alis*, water; its usual place of growth.]

CAL. 3 leaved. COR. 3 petalled. CAPS. numerous, 1 seeded, not opening.

A. PLANTAGO. *Big.* Leaves oval, subcordate, abruptly acuminate; flowers in verticillate panicles.
Synon. A parviflora. *Ph.* and *Ell.* *Vulgo*—Water Plantain.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Muddy rivulets, and miry grounds: frequent. 1 to 2 feet high: flowers white.

Obs. I have no doubt this is the A. plantago, of Muhlenberg, and Bigelow; and probably of Michaux, and the Flora Philadelphica: yet it is unquestionably, I think, the plant described in Pursh, and Elliott, under the name of A. parviflora. A few years ago, there was much idle gossiping, in the newspapers, about its virtues as a cure for *Hydrophobia;* but it soon experienced the fate of all such pretended remedies.

CLASS VII. HEPTANDRIA.

ORDER, MONOGYNIA.

151. TRIENTALIS. *Nutt. Gen.* 357.

[Lat. *Triens*, the third part of any thing; being about the third of a foot in height. *De Theis.*]

CAL. 7 leaved. COR. 7 parted, equal, flat. *Stam.* sometimes 5, 6, or 8. BERRY 1 celled, dry. *Seeds* many.

T. AMERICANA. *Ph.* Leaves lanceolate, acuminate, entire, 5 to 10, in a tuft at summit.
Synon. T. europæa. *Muhl. Mx.* &c. *Vulgo*—Chickweed Winter-green.
Hab. Moist, shaded places: George Vernon's: rare. 4 to 8 inches high: flowers white.

Obs. This is the only plant, of this class, indigenous here; and is very scarce. It was first detected by the late Dr. Vernon, on his father's farm, about three miles north of West Chester. I have not met with it elsewhere, in this vicinity.

CLASS VIII. OCTANDRIA.

ORDER, MONOGYNIA.

A. FLOWERS SUPERIOR.

152. RHEXIA. *Nutt. Gen.* 359.

[Gr. *Rhexis*, a rupture; from *rhesso*, to break, or burst—being supposed remedial in that disorder.]

CAL. urceolate, 4 or 5 cleft. COR. petals 4, inserted on the calyx. CAPS. 4 celled, in the ventricose calyx.

R. VIRGINICA. *Ell.* Stem 4 angled, winged; leaves sessile, bristly-dentate; corymbs dichotomous.
Fl. Middle of August. *Fr. mat.*
Hab. Wet, low grounds: Barrens, at George Vernon's: rare. 9 to 15 inches high: flowers purple, large.

Obs. This is one of our plants which is annually becoming more rare.

153. EPILOBIUM. *Nutt. Gen.* 363.

[Gr. *Epi lobou ion*,—a violet on a pod; in reference to the fructification.]

CAL. 4 cleft, tubular. COR. 4 petalled. CAPS. very long, linear, 4 celled, 4 valved. *Seeds* comose.

E. SQUAMATUM. *Nutt.* Root squamose; leaves linear, entire, margins revolute: peduncles long.
Synon. E. lineare. *Muhl.* E. rosmarinifolium. *Ph.* E. oliganthum. *Mx.* *Vulgo*—Herb Willow.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Low, swampy grounds; Patton's, &c. frequent. 1 to 2 feet high: flowers white, or pale red.

E. COLORATUM. *Ph.* Leaves lanceolate, serrulate, petiolate, with red veins.
Fl. Last of July, and after. *Fr. mat.* Last of September.
Hab. Moist, low grounds: along ditches, &c. frequent. About 2 feet high: flowers pale purple.

E. PALUSTRE. *Ph.* Leaves lanceolate, denticulate, subsessile; stigma undivided.
Fl. Beginning of August, and after. *Fr. mat.* Last of September.
Hab. Low grounds; along rivulets, &c. frequent. 2 to 3 feet high: flowers pale red.

Obs. This species (which Mr. Schweinitz remarks "is unaccountably omitted by Torrey,") seems to comprize several pretty striking *varieties*.

154. ŒNOTHERA. *Nutt. Gen.* 360.

[Gr. *Oinos*, wine, and *Ther*, a wild beast, or *thera*, catching—meaning obscure. See *De Theis, & Cyclop.*]

CAL. tubular, 4 cleft; segments deflected. COR. 4 petalled. *Stigma* 4 cleft. CAPS. 4 celled, 4 valved.

§ 1. *Fruit elongated; sessile.*

Œ. BIENNIS. *Ph.* Stem villous, scabrous; leaves ovate-lanceolate, dentate; stamens shorter than the corolla.
Vulgo—Evening Tree Primrose. Night Willow-herb.
Fl. Last of June till September. *Fr. mat.* Beginning of October.
Hab. Fields, fence-rows, and open woodlands: frequent. 3 to 6 feet high. flowers pale yellow.

Obs. Pursh informs us, that in a dark night the flowers have "a bright white appearance"—which he ascribes to phosphoric properties. It is a beautiful and interesting sight, to witness the sudden expansion of the flowers, about sunset, in this species; and also in the Œ. grandiflora.

Œ. MURICATA. *Ph.* Stem purplish, muricate; leaves lanceolate; stamens as long as the corolla.
Fl. Latter end of July, and after. *Fr. mat.* Middle of October.
Hab. Fence-rows, fields, &c. near the Bath: frequent. 1 to 2 feet high: flowers yellow.

§ 2. *Fruit ventricose, angular; mostly pedicellate.*

Œ. FRUTICOSA. *Ell.* Pubescent; branching from the base; leaves sessile, lanceolate, subdentate, acute.
Vulgo—Shrubby œnothera. Sun-drops.
Fl. Beginning of June, and after. *Fr. mat.* Latter end of August, and after.
Hab. Pastures, fence-rows, &c. Bath woods: frequent. 1 to 3 feet high: flowers yellow.

Œ. AMBIGUA. *Nutt.* Pilose: stem simple; leaves lance-ovate, denticulate; fruit subsessile.
Fl. Beginning of July, and after. *Fr. mat.* Latter end of September.
Hab. Fields, and dry open woodlands: frequent. 1 to 2 feet high: flowers yellow.

Obs. Allied to the foregoing; but supposed by Messrs. Nuttall and Barton to be sufficiently distinct.

Œ. HYBRIDA. *Ell.* Stem villous; leaves pubescent on both sides, oblong-lanceolate, obscurely denticulate.
Fl. Middle of June, and after. *Fr. mat.* Middle of September.
Hab. Sterile old fields: Barrens: frequent. 9 to 18 inches high: flowers pale yellow.

Obs. Most of the species of *Œnothera* vary considerably in size, and appearance, so as often to make it difficult to determine them satisfactorily.

155. OXYCOCCUS. *Nutt. Gen.* 364.

[Gr. *Oxys*, sharp, or acid, and *Kokkos*, a berry; from its highly acid fruit.]

CAL. 4 toothed. COR. 4 parted; segments sublinear, revolute. *Filaments* connivent. BERRY many seeded.

O. MACROCARPUS. *Nutt.* Repent; stems assurgent; leaves oval-oblong, entire, glaucous beneath.
Synon. Vaccinium macrocarpon. *Willd.* & *Muhl.* V. oxycoccus, *var.* oblongifolius. *Mx. Vulgo*—Cranberry.
Fl. Latter end of May. *Fr. mat.* Middle of October.
Hab. Low swampy grounds: near Unionville: rare. 1 to 2 feet long: flowers white; fruit red, large.

Obs. This slender little vine-like shrub, the fruit of which is so well known and so valuable, is very rare in this vicinity. It grows in a swamp S. E. of, and near to, the village of Unionville. In 1823, a specimen was brought to me which was found in William Bennett's meadow, in this Borough; but whether it had been planted there, or was indigenous, I could not learn. David Townsend Esqr. informs me that it grows pretty abundantly in some places near Poghtown, on the north side of this county. It is well worthy of culture, if suitable spots for its introduction were selected.

B. FLOWERS INFERIOR.

156. DIOSPYROS. *Nutt. Gen.* 797.

[Perhaps from the Gr. *Dis*, *dios*, Jupiter, and *Pyros*, grain, or fruit; meaning obscure. See *De Theis.*]

Polygamous: MALE. *Cal.* 4 cleft, small. *Cor.* urceolate, 4 cleft. *Stam.* sometimes 16, or more.
HERMAPH. *Cal.* 4 cleft, large. *Cor.* urceolate, 4 cleft. *Stigmas* 4, or 5. BERRY globose, 8 to 12 seeded.

D. VIRGINIANA. *Mx. Arb.* Leaves ovate-oblong, acuminate, entire, glabrous; petioles pubescent.
Vulgo—Persimmon. Virginian Date Plum.

Fl. Middle of June. *Fr. mat.* Middle of November.
Hab. Bottom lands: N. H. Sharples's; Brandywine: frequent. 20 to 40 feet high: flowers yellowish white.

Obs. The ripe fruit is sweet and luscious, and rather agreeable to eat, after it has been subjected to the action of frost; but remarkably harsh and astringent, while green. For an interesting account of the properties of the tree, and its fruit, see the Inaugural Thesis of the late Professor Woodhouse, of the University of Pennsylvania.

157. ACER. *Nutt. Gen.* 366.

[A Latin name, signifying hard, or sharp; pikes and lances having been made of the wood.]

Polygamous: MALE, *Cal.* about 5 cleft, colored. *Cor.* petals 5, or 0. *Stam.* sometimes 5, or 6.
HERMAPH. *Cal. Cor.* and *Stam.* as in the Male. *Samaræ* mostly two, alated, united at base.

A. RUBRUM. *Mx. Arb.* Leaves mostly 3 lobed, acute, serrate, glaucous beneath; flowers in umbels, erect.
Vulgo—Red Maple. Swamp Maple.
Fl. Beginning of April. *Fr. mat.* Latter end of September
Hab. Moist, low grounds: swampy woodlands: common. 30 to 60 feet high: flowers red, or yellowish.

Obs. The variety, with *yellowish* flowers, noticed by Marshall, is very frequent here. The wood is much used by Chairmakers, Cabinetmakers, &c.

A. SACCHARINUM. *Mx. Arb.* Leaves palmate-5 lobed, acuminate; flowers pedunculate, pendulous.
Vulgo—Sugar Maple.
Fl. Latter end of April. *Fr. mat.* Beginning of October.
Hab. Rich woodlands: Jno. Taylor's, Brandywine: rare. 30 to 60, or 70 feet high: flowers pale yellow.

Obs. This handsome and valuable tree occurs pretty frequently along the Brandywine, from Jno. Taylor's islands down to the fork of that stream; but is rare elsewhere. It is often transplanted about houses, for the sake of its shade; but it does not exist in sufficient quantity here to induce the attempt to obtain Sugar from it.

A. NEGUNDO. *Mx. Arb.* Dioicous: leaves ternate, or pinnate by 5's; flowers in pendulous racemes.
Vulgo—Ash-leaved Maple. Box Elder.
Fl. Middle of April. *Fr. mat.* Last of September.
Hab. Low grounds, along Brandywine, frequent. 15 to 30 feet high: flowers pale green.

Obs. This species is pretty abundant along Brandywine; but I have rarely seen it elsewhere. It is rather a small, branching tree, here; and the leaves are frequently trifoliate.

158. DIRCA. *Nutt. Gen.* 367.

[Gr. *Dirka*, a fountain, or wet place; from its usual place of growth.]

CAL. 0. COR. tubular, border obsolete. *Stam.* unequal, exserted. *Style* filiform. BERRY 1 seeded.

D. PALUSTRIS. *Ell.* Slender and branching; leaves alternate, oblong-oval; buds tomentose.
Vulgo—Leather-wood.
Fl. Beginning of April. *Fr. mat.*
Hab. Wet, low grounds: Brandywine: rare. 2 to 4 feet high: flowers greenish yellow.

Obs. This little shrub has become very rare, here; but the late Dr. M. Marshall informed me he had found it growing along the Brandywine. It also grew, formerly, on the farms of Brinton Darlington, and Jonathan Parke.

ORDER, DIGYNIA.

159. CHRYSOSPLENIUM. *Nutt. Gen.* 369.

[Gr. *Chrysos*, gold, and *Splen*, the spleen; figuratively, a *golden remedy* for the Spleen. *De Theis.*]

CAL. superior, 4 or 5 cleft, colored. COR. 0. CAPS. birostrate, 1 celled, many seeded.

C. OPPOSITIFOLIUM. *Ell.* Leaves opposite, subrotund, tapering to a petiole at base, slightly crenate.
Vulgo—Golden Saxifrage. Water Carpet.
Fl. Beginning of April, and after. *Fr. mat.*
Hab. Shaded springs, and rivulets: Bath: frequent. 6 to 12 inches long: anthers orange-colored.

Obs. This prostrate, succulent herb, is often gathered and used through mistake, as I have observed, instead of *Brooklime* (Veronica beccabunga.) in cases of Cynanche trachealis; but I presume they are about *equally* efficacious, as medicines

ORDER, TRIGYNIA.

160. POLYGONUM. *Nutt. Gen.* 370.

[Gr. *Poly*, much, and *Gonu*, a knee, or joint; the stem being much jointed.]

CAL. 0. COR. 5 or 4 parted, persistent. *Seed* 1, mostly 3 angled, covered. *Stam.* & *Styles* variable.

§ 1. *Flowers axillary.*

P. AVICULARE. *Ell.* Procumbent; flowers subsessile; leaves small, lance-oblong; stipules short, lacerate.
Vulgo—Knot-grass.
Fl. Last of June till October. *Fr. mat.* September, and after.
Hab. About houses, gardens, footways, &c. common. 6 to 12 inches long: flowers green and white.

P. ERECTUM. *Muhl.* Mostly erect; flowers 5-androus; leaves broad-oval, rather acute.
Synon. P. aviculare, *var.* latifolium. *Mx.* *Vulgo*—Upright Knot-grass.
Fl. Last of August, and after. *Fr. mat.* Middle of October.
Hab. About houses, yards, gardens, &c. common. 1 to 2, and 3 feet high: flowers greenish.

Obs. I am clearly of opinion that Dr. Muhlenberg was correct, in making this a distinct species from the foregoing; and have therefore followed him.

P. TENUE. *Ell.* Stem erect, angular, flexuose; leaves linear, strict; flowers alternate, remote.
Synon. P. linifolium. *Muhl. Bart. Fl. Phil.*
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Dry, sterile soils: Barrens, &c. frequent. 9 to 18 inches high: flowers white, small.

§ 2. *Flowers in terminal spikes.*

P. VIRGINIANUM. *Ell.* Spike virgate; flowers 5-androus, 2-gynous; seed rostrate; leaves lance-ovate.
Fl. Last of July, and after. *Fr. mat.* Latter end of September.
Hab. Rich woodlands: frequent. 2 to 4 feet high: flowers white, small.

P. PUNCTATUM. *Ell.* Spike slender, subnutant; style 3 parted; leaves lanceolate, pellucid-punctate.
Synon. hydropiper. *Muhl.* and *Mx.* P. hydropiperoides. *Ph.* *Vulgo*—Arse-smart. Water pepper.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Barnyards, lanes, along ditches, &c. common. 12 to 18 inches high; flowers green and white.

Obs. This is a very hot, acrid species; and sometimes causes obstinate, painful ulcerative inflammation, when applied to the skin.

P. MITE. *Ph.* Style 3 cleft; leaves narrow-lanceolate, acuminate; stipules birsute, long-ciliate.
Synon. P. hydropiperoides. *Mx.*
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Moist, sterile soils: Barrens, &c. frequent. About 2 feet high: flowers pale purple.

P. PERSICARIA. *Ph.* Flowers 6-androus, style 2 cleft; spikes oblong; leaves lanceolate; stipules ciliate.
Fl. Middle of August, and after. *Fr. mat.* Last of September.
Hab. Gardens, yards, roadsides, &c. frequent. 1 to 2 feet high: flowers pale rose-red.

Obs. The leaves are generally marked, in the centre, with dark lunate, or heart-shaped spots. The seeds of this species, though generally triquetrous, are sometimes ovate, and compressed.

P. PENNSYLVANICUM. *Ph.* Flowers crowded; style 2 cleft; peduncles hispid; stipules truncate.
Fl. Last of July, and after. *Fr. mat.* Beginning of October.
Hab. Moist, low grounds: frequent. 2 to 3 feet high: flowers rose-red, large.

Obs. The seeds of this species are ovate, compressed, and briefly acuminate; the flowers often 6-androus.

§ 3. *Flowers sub-racemed: leaves sagittate, cordate, or hastate.*

P. SAGITTATUM. *Ell.* Flowers subcapitate; style 3 cleft; stem flaccid, retrorsely aculeate; leaves sagittate.
Vulgo—Arrow-leaved Tear-thumb.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Swampy thickets, and wet, shaded grounds: common. 2 to 4 feet long: flowers pale red.

P. ARIFOLIUM. *Ell.* Flowers distinct, 6-androus, style 2 cleft; stem retrorsely aculeate; leaves hastate.
Vulgo—Halbert-leaved Tear-thumb.
Fl. Beginning of August, and after. *Fr. mat.* Middle of October.
Hab. Swampy meadows; along rivulets, &c. common. 3 to 6 feet long: flowers pale red.

Obs. The seeds are large, roundish, or ovate, and somewhat compressed. I think *hastatum* would have been a more appropriate specific name.

P. SCANDENS. *Ph.* Leaves broad-cordate; racemes axillary, erect; seed-cover 3-winged.
Vulgo—American climbing Buck-wheat.
Fl. Last of August, and after. *Fr. mat.* Beginning of October.
Hab. Thickets, fence-rows, and moist places: frequent. 8 to 12 feet long: flowers white.

P. CONVOLVULUS. *Ph.* Leaves oblong, hastate-cordate; stem roughish; seed-cover without wings.
Vulgo—Wild Buck-wheat. Black Bind-weed.
Fl. Middle of July, and after. *Fr. mat.* Last of August, and after.
Hab. Cultivated grounds; fence-rows, &c. frequent. 4 to 6 feet long: flowers white.

Obs. This is believed to be a foreigner. It often occurs in wheat fields, twining round the stalks of wheat. Although this and the foregoing species have considerable resemblance to each other, yet they are readily distinguished by comparing the fruit, and leaves.

CLASS IX. ENNEANDRIA.

ORDER, MONOGYNIA.

161. LAURUS. *Nutt. Gen.* 374.
[The ancient Latin name for the Bay tree: origin obscure.]

Irregularly polygamous: CAL. 0. COR. 4 to 6 parted. *Nectaries* 3, each a 2 bristled or 2 lobed gland, surrounding the germ. *Stam.* variable, 3 to 14. DRUPE 1 seeded.

L. BENZOIN. *Ell.* Leaves cuneate-oboval; flowers in clustered umbels, on the leafless branches.
Synon. L. pseudo-benzoin. *Mx.* *Vulgo*—Spice-wood. Wild Allspice. Fever Bush. Benjamin tree.
Fl. Beginning of April. *Fr. mat.* Last of September.
Hab. Shaded rivulets, and fence-rows: frequent. 6 to 8 feet high: flowers greenish yellow; fruit red.

Obs. An aromatic stimulant. A decoction of the branches of this shrub is much used, as a medicinal drink for cattle, &c. in the spring of the year.

L. SASSAFRAS. *Mx. Arb.* Mostly dioicous; leaves, some oval and entire, others 2 or 3 lobed.
Vulgo—Sassafras. *Sassafrack.*
Fl. Last of April. *Fr. mat.* Last of August.
Hab. Woodlands, fence-rows, &c. common. 15, to 30 or 40 feet high: flowers yellow; fruit blue.

Obs. This a powerful, aromatic stimulant, and possesses valuable medical properties: for an account of which, as well as those of the foregoing species, See *Dr. Brockenbrough's Inaugural Thesis*, 1824. *Philad.* Also, *Barton's Collections for a Mat. Med. U. S.*

CLASS X. DECANDRIA.

ORDER, MONOGYNIA.

A. FLOWERS MONOPETALOUS.

162. GAULTHERIA. *Nutt. Gen.* 378.
[In honor of *M. Gaulthier;* a French Physician and Botanist, of Quebec, in Canada.]

CAL. 5 cleft, bibracteate at base. COR. ovate. CAPS. superior, 5 celled, invested by the *berried* calyx.

G. PROCUMBENS. *Ell.* Leaves crowded at summit, oboval, ciliate-denticulate; flowers terminal, nodding.
Vulgo—Tea-berry. Mountain tea. Ginger-berry. Spicy Winter-green. Partridge-berry.
Fl. Middle of July. *Fr. mat.* Last of September.
Hab. Woodlands: Patton's: rare. 4 to 6 inches high: flowers white; fruit red.

Obs. This spicy little evergreen is very rare in this vicinity. I have only met with it in one spot, near the western border of Patton's woods. Dr. Baldwin informed me it grew on the Brandywine hills, near Downingtown; and I understand it has also been found in the hilly woodlands south of George Darlington's.

163. VACCINIUM. *Nutt. Gen.* 379.

[An ancient, classical name; of obscure etymology.]

CAL. superior, 5 toothed. COR. urceolate, or campanulate, 5 cleft. BERRY 4 or 5 celled, many seeded.

V. ALBUM. *Ph.* Leaves oval, acute, entire; flowers campanulate, axillary, nodding; anthers exsert, awned.
Vulgo—Deer-berry. Squaw Whortleberry.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Woodlands: Patton's: frequent. About 2 feet high: flowers white: fruit bluish green.

Obs. This is a showy species, when in flower; and bears large globose berries, which generally continue of a greenish color until ripe, and are not eatable. The *V. staminеum*, of Pursh, and other Botanists, appears to be only a *variety* of this. Indeed the whole genus, so far as I have observed, seems to be highly polymorphous, and difficult to define satisfactorily. I have seen flowers of this species which had 20 stamina.

V. RESINOSUM. *Ph.* Leaves oblong-oval, sprinkled with resinous dots beneath; corolla ovate-conic.
Vulgo—Black Whortleberry. Huckleberry.
Fl. Latter end of May. *Fr. mat.* Last of July.
Hab. Sterile woodlands; Barrens, &c. frequent. 1½ to 3 feet high: flowers reddish; fruit black.

Obs. The fruit is pleasant, but not so much esteemed as the following, on account of its larger seeds.

V. FRONDOSUM. *Ell.* Leaves oval-lanceolate, sub-glaucous and pubescent; corolla globose-campanulate.
Synon. V. glaucum. *Mx.* *Vulgo*—Blue Huckleberry. Blue-tangles.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Low, moist grounds: Matlack's, &c. not common. 3 to 5 feet high: flowers white; fruit bluish black.

Obs. This species produces the most agreeable fruit; and is more rare, here, than the others.

V. CORYMBOSUM. *Ell.* Leaves lanceolate, acute, young ones silky-pubescent; corolla oblong.
Synon. V. disomorphum. *Mx.* *Vulgo*—Swamp Whortleberry. Bilberry.
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Wet places: near Geo. Vernon's, &c. not common. 5 to 12 feet high: flowers reddish; fruit black.

Obs. We have, probably, some varieties of this species. Although I have consulted several distinguished botanical friends, respecting our Vacciniums, I am by no means satisfied that my list is either complete, or entirely to be relied on. My difficulties have been enhanced, also, by the apparent discrepancy among the authors whom I have consulted.

164. ANDROMEDA. *Nutt. Gen.* 380—1.

[A poetical name; borrowed from the ancient Classics.]

CAL. inferior, 5 parted. COR. ovate, or subcylindric; border 5 cleft, reflected. CAPS. 5 celled, 5 valved.

A. LIGUSTRINA. *Ell.* Leaves obovate-lanceolate, acute; panicles terminal, naked; corolla globose.
Synon. A. paniculata. *Ph. Mx. Marshall.* Lyonia paniculata. *Nutt.*
Fl. Middle of June. *Fr. mat.* Beginning of October.
Hab. Low, moist woodlands: frequent. 3 to 5 feet high: flowers white, small.

Obs. This, though subject to some *varieties*, is, I think, the only species of Andromeda which I have observed in this vicinity.

165. KALMIA. *Nutt. Gen.* 382.

[In honor of *Peter Kalm*; a Swedish Botanist.]

CAL. 5 parted. COR. salverform; 10 horns beneath, and 10 cavities within, for the anthers. CAPS. 5 celled.

K. LATIFOLIA. *Mx. Arb.* Leaves oval, entire, coriaceous, smooth; corymbs terminal, viscid.
Vulgo—Laurel. Calico-bush. Ivy-bush.
Fl. Latter end of May. *Fr. mat.* Beginning of October.
Hab Shaded, rocky hills: Brandywine: frequent. 3 to 8 feet high: flowers rose-red; sometimes white.

Obs. A highly ornamental evergreen, when in flower; and, if it were more rare, would doubtless be much sought after. It possesses active medicinal properties; (for an account of which, See *Barton's Collections*, and *Dr. G. G. Thomas's Inaugural Thesis*, 1802, *Philad.*) but I believe it has seldom been employed. The wood is very hard, and is often used in making handles for knives, and other small implements.

☞ The K. *angustifolia* has not been found in this vicinity. I have not seen it nearer than the Octoraro Creek; which divides this county from Lancaster.

166. EPIGÆA. *Nutt. Gen.* 385.

[Gr. *Epi*, upon, and *Ge*, the earth; from its prostrate habit.]

CAL. 5 parted, tribracteate at base. COR. salverform. CAPS. 5 celled: *Receptacle* 3 parted.

E. REPENS. *Ell.* Hirsute; leaves cordate-ovate, entire, reticulate; corolla cylindrical.
Vulgo—Ground Laurel. Trailing Arbutus.
Fl. Middle of April, and after. *Fr. mat.*
Hab. Hilly woodlands, of northern exposure: frequent. 6 to 12 inches long: flowers pale red; fragrant.

Obs. This prostrate little evergreen has been supposed, lately, to be injurious to cattle, when eaten by them: (See *American Farmer, Vol. 7. p.* 139.) but further observation will probably be requisite to determine the fact.

☞ The RHODODENDRON MAXIMUM, or *Mountain Laurel*, grows along the Schuylkill, on the north-eastern boundary of this county; but, I believe, not nearer to this place.

B. FLOWERS POLYPETALOUS. a. *Regular.*

167. PYROLA. *Nutt. Gen.* 389.

[A diminutive of *Pyrus*, a Pear; the leaves resembling those of the pear-tree.]

CAL. 5 parted. COR. 5 petalled. *Style* exserted. CAPS. 5 celled, opening at the angles.

P. ROTUNDIFOLIA. *Nutt.* Leaves orbicular, obsoletely crenulate; bractes ovate, acute; pistil declined.
Vulgo—Round-leaved Winter-green. Shin-leaf.
Fl. Beginning of June. *Fr. mat.* Latter end of August.
Hab. Woodlands: common. 5 to 9 inches high: flowers white.

P. ELLIPTICA. *Nutt.* Leaves oblong-oval, obtuse, plicately crenate: bractes linear, subulate.
Fl. Beginning of June. *Fr. mat.* Latter end of August.
Hab. Woodlands: common. 4 to 6 inches high: flowers white.

Obs. Very nearly allied to, and easily confounded with, the preceding; but perhaps sufficiently distinct.

P. SECUNDA. *Ph.* Leaves roundish-ovate, acute, serrulate; flowers secund; pistil straight.
Fl. Last of July. *Fr. mat.*
Hab. Woodlands: Wollerton's: rare. 4 to 6 inches high: flowers greenish white.

Obs. The root of this species is stoloniferous, long, and slender,—often reaching two feet or more. It is very rare in this immediate vicinity; but I have seen it in abundance, in John Jackson's woodlands, in Londongrove township, about 15 miles from West-Chester.

168. CHIMAPHILA. *Nutt. Gen.* 390.

[Gr. *Cheima*, Winter, and *Philos*, a Friend, or Lover; from its sempervirent character.]

CAL. 5 parted. COR. 5 petalled. *Stigma* sessile, orbicular. CAPS. 5 celled, opening from the summit.

C. MACULATA. *Ph.* Leaves ovate-lanceolate, incisely serrate, discolored; peduncle 2 or 3 flowered.
Synon. Pyrola maculata. *Willd. Mx.* &c. *Vulgo*—Spotted Winter-green.
Fl. Latter end of June. *Fr. mat.* Last of September.
Hab. Woodlands: frequent. About 6 inches high: flowers white.

Obs. Dr. Smith (*Cyclopæd.*) condemns the establishment of this Genus; but as it has received the sanction of several of our most eminent Botanists, I have thought it expedient to adopt it. This species is considered poisonous by many persons; but it is a mere prejudice, arising probably from the circumstance of its having spotted leaves. Its medical virtues, however, are inferior to those of the following; and Schœpf and Pursh are undoubtedly mistaken in saying that *this* is the plant called *Pipsissawa*, among the Natives. That name, so far as I can learn, is exclusively applied to the subsequent species.

C. UMBELLATA *Nutt.* Leaves cuneate-lanceolate, serrate, of one color; peduncle corymbed.
Synon. C. corymbosa. *Ph.* Pyrola umbellata. *Willd. Mx.* &c. *Vulgo*—Pipsissawa.
Fl. Middle of June. *Fr. mat.* Latter end of September.
Hab. Hilly woodlands: common. 6 to 8 inches high: flowers reddish white.

Obs. This is the little evergreen so noted, as an *Indian* medicine, under the name of *Pipsissawa*, or *Phipsessawa*. It has been much extolled, in the Gazettes, as a remedy for malignant fevers, and cancerous sores. It is moderately bitter and astringent; and is, doubtless, worthy of notice: but I am convinced, from many trials of it, that its virtues (as is usual in such cases,) have been greatly overrated.

169. MONOTROPA. *Nutt. Gen.* 388.

[Gr. *Monos*, one, and *trepo*, to turn; its flowers turning chiefly to one side.]

CAL. 0. COR. pseudo-polypetalous, persistent; 5 exterior gibbous at base. CAPS. 5 valved. *Seeds* numerous.

M. UNIFLORA. *Nutt.* Stems mostly clustered, 1 flowered; flower nodding, finally erect.

Vulgo—Bird's nest. Indian pipe.
Fl. Last of June, till September. *Fr. mat.* Last of July, and after.
Hab. Woodlands: frequent. 4 to 8 inches high: whole plant white, succulent.

M. LANUGINOSA. *Mc.* Octandrous; stem spike-flowered; flowers and scales pubescent.
Synon. Hypopithys lanuginosa. *Nutt.* *Vulgo*—Pine-sap. False Beech-drops.
Fl. Beginning of July, and after. *Fr. mat.* Beginning of August, and after.
Hab. Woodlands: Patton's: not common. 3 to 6 inches high: whole plant reddish orange.

Obs. These two plants seem so nearly allied that I have concluded to keep them together: but if the genus Hypopithys should finally be re-established, it ought probably to be transferred to the class *Octandria*.

b. *Flowers irregular.*

170. CASSIA. *Nutt. Gen.* 398.
[An ancient name, of obscure etymology.]

CAL. 5 leaved. COR. petals 5. *Anthers*, 3 lowest rostrate, on longer filaments. LEGUME membranaceous.

C. MARILANDICA. *Ph.* Leaflets in about 8 pairs, lance-oblong; racemes manyflowered; legumes curved.
Vulgo—Wild Senna.
Fl. Latter end of July. *Fr. mat.* Beginning of October.
Hab. Low grounds: Brandywine, &c. frequent. About 4 feet high: flowers yellow.

Obs. The leaves are said to be a tolerable substitute for the Senna of the shops. Previous to flowering it is often mistaken for a young locust tree, by careless observers.

C. NICTITANS. *Ph.* Leaflets in many pairs, linear; peduncles clustered, few-flowered; flowers pentandrous.
Vulgo—Wild Sensitive plant.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Dry, sandy banks: roadsides, &c. very common. 6 to 12 inches high: flowers yellow.

Obs. The leaves of this species are somewhat irritable, like those of the Mimosa, or sensitive plant. The *C. chamæcrista* grows about Wilmington, Del. but I have not met with it nearer to this place, except in gardens.

171. BAPTISIA. *Nutt. Gen.* 400.
[ ]

CAL. half 4 or 5 cleft, bilabiate. COR. papilionaceous. *Stam.* caducous. LEGUME ventricose, pedicellate.

B. TINCTORIA. *Ell.* Glabrous; leaves ternate; leaflets cuneate-obovate, sub-sessile; racemes terminal.
Synon. Podalyria tinctoria. *Willd. Mx. Ph.* &c. *Vulgo*—Wild Indigo.
Fl. Middle of June. *Fr. mat.* Middle of September.
Hab. Dry, hilly woodlands: very common. About 2 feet high, very bushy, or branching: flowers yellow.

ORDER, DIGYNIA.

172. SAXIFRAGA. *Nutt. Gen.* 405.
[Lat. *Saxum*, a rock, and *frango*, to break; from its often growing in clefts of rocks.]

CAL. 5 parted, persistent. COR. 5 petalled. CAPS. birostrate, opening between the beaks, many seeded.

S. VIRGINICA. *Fl. Phil.* Leaves spathulate, crenate; panicle corymbose; flowers subsessile, crowded.
Synon. S. nivalis. *Willd. Muhl.* S. virginiensis. *Mx. Ph. Ell.* S. vernalis, *Big.* *Vulgo*—Early Saxifrage.
Fl. Middle of April. *Fr. mat.* Latter end of May.
Hab. Dry, stony banks; woodlands &c. frequent. 4 to 12 inches high: flowers white.

S. PENNSYLVANICA. *Ph.* Leaves oblong-lanceolate, denticulate; peduncles alternate, corymbose-capitate.
Vulgo—Large Saxifrage. Pennsylvanian Saxifrage.
Fl. Middle of May. *Fr. mat.* Beginning of July.
Hab. Swamps, and low grounds: frequent. 1 to 3 feet high: flowers yellowish green.

Obs. This species is usually about 2 feet high; but I have occasionally met with it upwards of 5 feet high.

173. MITELLA. *Nutt. Gen.* 407.
[Lat. diminutive of *Mitra*, a cap; the ripe seedvessel resembling a cap, or *little mitre*.]

CAL. 5 cleft, persistent. COR. petals 5, pinnatifid, inserted on the calyx. CAPS. 1 celled, semibivalved.

M. DIPHYLLA. *Willd.* Leaves cordate, sub-lobate, acute, dentate; scape 2 leaved, leaves opposite.
Vulgo—Bishop's cap. Bastard American Sanicle. Currant-leaf.
Fl. Latter end of April, and after. *Fr. mat.* Beginning of June.
Hab. Rich, moist woodlands: Brandywine: frequent. 1 to 2 feet high: flowers white, delicate.

174. SAPONARIA. *Natt. Gen.* 408.

[Lat. *Sapo*, soap; its mucilage affording a sort of substitute for that article.]

CAL. tubular, 5 toothed, naked at base. COR. petals 5, unguiculate. CAPS. superior, 1 celled.

S. OFFICINALIS. *Ell.* Calyx cylindrical; leaves opposite, subconnate, ovate-lanceolate, entire.
Vulgo—Soap-wort. Bruise-wort. Bouncing Bet.
Fl. Middle of July, and after. *Fr. mat.* Last of August, and after.
Hab. Gardens, and among rubbish: frequent. 12 to 18 inches high: flowers reddish white.

Obs. This is a foreigner, and rather troublesome in our gardens. Dr. Withering says that when "bruised and agitated with water, it raises a lather like soap, which washes greasy spots out of clothes. A decoction of it, applied externally, cures the itch." He also notices other medical properties (See his *Systematic Arrangement of British Plants, fifth Edition, Vol. 2. p.* 503): But I incline to doubt them.

ORDER, TRIGYNIA.

175. CUCUBALUS. *Natt. Gen.* 411.

[Altered from *Cacobole*—Gr. *Kakos*, evil, and *Bole*, shoot, or plant; from its supposed character. *De Theis.*]

CAL. inflated, 5 toothed. COR. petals 5, unguiculate, not crowned at throat. CAPS. 3 celled.

C. STELLATUS. *Ell.* Leaves verticillate by 4's, oval-lanceolate, acuminate; petals fimbriate.
Vulgo—Four-leaved Campion.
Fl. Beginning of July, and after. *Fr. mat.* Middle of August, and after.
Hab. Woodlands: Bath, &c. frequent. 2 to 4 feet high: flowers white.

176. SILENE. *Natt. Gen.* 412.

[Supposed from the Gr. *Sialon*, saliva; in allusion to the frothy, viscid moisture on the stalks.]

CAL. cylindric, or conic. COR. petals 5, unguiculate, mostly crowned at throat. CAPS. 3 celled.

S. ANTIRRHINA. *Ell.* Leaves narrow-lanceolate; peduncles dichotomous, or trifid; capsules inflated.
Vulgo—Catch-fly.
Fl. Latter end of June. *Fr. mat.* Middle of July.
Hab. Wheat fields, fence-rows, &c. frequent. 1½ to 2 feet high: flowers white, small.

Obs. Remarkable for having portions of the stem, and peduncles, covered with a dark red viscid matter, very adhesive.

177. STELLARIA. *Natt. Gen.* 413.

[Lat. *Stella*, a star; the corolla, of bifid petals, resembling a star.]

CAL. 5 leaved, spreading. COR. petals 5, deeply 2 cleft. CAPS. ovate, 1 celled, many seeded.

S. MEDIA. *Ph.* Stems procumbent, with an alternating, lateral, hairy line; leaves ovate, smooth.
Vulgo—Common Chickweed.
Fl. All summer. *Fr. mat.* May, and after.
Hab. Gardens, and cultivated grounds: very common. About 1 foot long: flowers white.

Obs. Probably a foreigner. The stamens vary, in number, from 3 to 5, or 10. Sometimes it continues green throughout the winter; and I have seen it in flower in the month of February.

S. LANCEOLATA. *Tor?* Glabrous; leaves oval-lanceolate, ciliate at base; petals shorter than the calyx.
Synon. S. uliginosa. *Bart. Fl. Phil?* Micropetalum lanceolatum. *Ph?* Spergulastrum lanceolatum. *Mx?*
Fl. Middle of May, and after. *Fr. mat.* Beginning of July, and after.
Hab. Swampy springs, on the Barrens: frequent. 9 to 15 inches high: flowers white, delicate.

Obs. I have some doubts respecting this species. On the authority of Mr. Schweinitz, I have referred it to the S. lanceolata, of Torrey. It is a smooth, succulent plant, with flaccid 4 cornered stems; leaves opposite, sub-amplexicaul, oval-lanceolate, narrow at base, and slightly ciliate; flowers sub-paniculate.

S. LONGIFOLIA. *Tor.* Leaves opposite, lance-linear, entire, smooth: panicle terminal: calyx 3 nerved.
Synon. S. graminea. *Big. & Bart. Fl. Phil.* Micropetalum gramineum. *Ph.* Spergulastrum gramineum. *Mx.*
Fl. Middle of May. *Fr. mat.* Beginning of July.
Hab. Swampy grounds: Bath, &c. frequent. 12 to 20 inches high: flowers white.

Obs. Stem sub-decumbent, slender, acutely 4 angled, or sub-alate; the number of styles varying from 3, to 4 or 5.

178. ARENARIA. *Nutt. Gen.* 414.

[Lat. *Arena*, sand; in reference to the favorite soil of some species.]

CAL. 5 leaved, spreading. COR. petals 5, ovate, entire. CAPS. ovate, 1 celled, many seeded.

A. LATERIFLORA. *Ph?* Stem filiform; pedicels lateral, long, 2 or 3 cleft, 1 bibracteate in the middle.
Fl. Latter end of June, and after. *Fr. mat.* Middle of July, and after.
Hab. Barrens: shaded rivulet, above S. Stringfellow's: rare. 9 to 18 inches long: flowers white, small.

Obs. Mr. Schweinitz, to whom I submitted this plant, says "there is no doubt that this is A. lateriflora:" and yet it does not well accord with the description given by Willdenow and Pursh. The leaves are lanceolate-oval, and *acute;* the petals are *shorter* than the calyx,—and, what is more remarkable, are deeply *two-parted!* In other respects, however, it seems to suit the description. Can it be, that the plant intended by Pursh, &c. is really a *Stellaria*? My specimens certainly, in my view, have more of the habit, and locality of a Stellaria, than of an Arenaria.

A. SERPYLLIFOLIA. *Ell.* Stem dichotomous, diffuse; leaves ovate, acute: calyx longer than the petals.
Vulgo—Thyme-leaved Sand-wort.
Fl. Latter end of May, and after. *Fr. mat.* Last of June, and after.
Hab. Dry, sandy fields; gardens, &c. frequent. 3 to 9 inches long: flowers white, small.

A. STRICTA. *Ell.* Stems numerous; leaves subulate-linear, erect; calyx much shorter than the petals.
Fl. Last of May, till August. *Fr. mat.* Latter end of June, and after.
Hab. Barren ridge, north of West-Chester: not common. 4 to 10 inches high: flowers white.

Obs. This plant is remarkably local in its habitat. It abounds among the serpentine rocks, on the most sterile parts of the Barren ridge: but I have never met with it elsewhere. The capsule is about the length of the calyx. See *Elliott.*

ORDER, PENTAGYNIA.

179. CERASTIUM. *Nutt. Gen.* 417.

[Gr. *Keration*, a little horn; in allusion to the form of the capsules.]

CAL. 5 leaved. COR. petals 5, bifid, or emarginate. CAPS. 1 celled, opening at the 10 toothed summit.

C. VULGATUM. *Ph.* Cespitose; hirsute; leaves ovate; petals oblong, about as long as the calyx.
Vulgo—Mouse-ear Chickweed. Mouse-ear.
Fl. Middle of May, and after. *Fr. mat.* June, and after.
Hab. Pastures, and open woodlands: frequent. 6 to 10 inches high: flowers white.

C. VISCOSUM. *Ph.* Diffuse; hirsute; viscous; leaves lance-oblong; petals obovate, as long as the calyx.
Vulgo—Clammy Mouse-ear.
Fl. Middle of May, and after. *Fr. mat.* June, and after.
Hab. Woodlands, &c. near Hatch's factory: frequent. 4 to 6 inches high: flowers white.

C. SEMIDECANDRUM. *Ph.* Pentandrous; decumbent; leaves ovate, acute; petals shorter than the calyx.
Fl. Beginning of May, and after. *Fr. mat.* June, and after.
Hab. Pastures, &c. Green tree farm: frequent. 6 to 12 inches long: flowers white.

Obs. My specimens seem to be a *variety*,—being somewhat glabrous; the leaves strictly ovate, lower ones petiolate. This and the two preceding species are supposed to be foreigners.

C. LONGEPEDUNCULATUM. *Fl. Phil.* Viscid-pubescent; leaves oblong-linear, acute; peduncles long.
Synon. C. glutinosum. *Nutt.* C. nutans. *Torrey.*
Fl. Beginning of May, and after. *Fr. mat.* Last of May, and after.
Hab. Woodlands; shaded rivulets, &c. frequent. 6 to 12 inches high: flowers white.

C. HIRSUTUM? *Ell.* Hirsute; leaves oval-lanceolate, connate, rather obtuse; flowers clustered, large.
Fl. Latter end of April, and after. *Fr. mat.* Last of May, and after.
Hab. Stony banks: Barrens; Strode's Mill: frequent. 4 to 8 inches long: flowers white.

Obs. Mr. Schweinitz, in a note to me, says "this exactly resembles C. *hirsutum*, Ell. and Muhl. as communicated to me by Mr. Elliott." Indeed Mr. Elliott's description suits it very well, except that some of the leaves, above, are rather lanceolate, and somewhat acute.

C. OBLONGIFOLIUM? *Tor.* Tomentose; dichotomous; leaves lance-oblong, narrow; peduncles by 3's.
Fl. Middle of May, and after. *Fr. mat.* Beginning of June, and after.
Hab. Barren Ridge, frequent: rare elsewhere. 6 to 12 inches high: flowers white.

Obs Of this species Mr. Schweinitz remarks, that it "comes nearest to the C. *oblongifolium*, Torrey; but at the same time is a very remarkable one,—which perhaps on closer examination, and comparison, may prove new." Dr. Muhlenberg was most probably acquainted with it; and I am inclined to think it must be the C. *dichotomum*, of his catalogue.

180. AGROSTEMMA. *Nutt. Gen.* 418.

[Gr. *Agros*, a field, and *Stemma*, a crown, or garland; from the beauty of some of the species.]

CAL. 1 leaved, coriaceous, tubular, summit 5 cleft. COR. petals 5, unguiculate; limb obtuse. CAPS. 1 celled.

A. GITHAGO. *Ph.* Hirsute; calyx-teeth linear-lanceolate, longer than the corolla; petals entire, naked.
Vulgo—Cockle. Corn Cockle.
Fl. Middle of June. *Fr. mat.* Middle of July.
Hab. Grain fields; chiefly among wheat and rye: frequent. 2 to 4 feet high: flowers purple.

Obs. This unwelcome foreigner is diligently rooted out of our grain fields every year; but it still maintains its ground. When abundant among wheat, its black seeds injure the quality of the flour.

181. PENTHORUM. *Nutt. Gen.* 421.

[Gr. *Pente*, five, and *Oros*, a column; alluding to the five conic beaks of the capsule.]

CAL. 5 to 10 cleft. COR. petals 5, or 0. CAPS. 5-cuspidate, 5 celled. *Seeds* numerous, minute.

P. SEDOIDES. *Ell.* Stem branching, angled; leaves lanceolate, subsessile, serrate; spikes secund.
Vulgo—Virginian Stone-crop. Virginian Orpine.
Fl. Last of July till September. *Fr. mat.* Beginning of October.
Hab. Swampy rivulets, ditches, &c. frequent. 12 to 18 inches high: flowers yellowish green.

ORDER, DECAGYNIA.

182. PHYTOLACCA. *Nutt. Gen.* 424.

[Gr. *Phyton*, a plant, and *Lacca*, a barbarous word meaning *lake;* a substance the color of its berries.]

CAL. 0. COR. petals 5, calycine. BERRY superior, 10 celled, 10 seeded.

P. DECANDRA. *Ell.* Branching; glabrous; leaves ovate-lanceolate, acute at each end.
Vulgo—Poke. Poke-berry bush. Pigeon-berry.
Fl. Last of June till September. *Fr. mat.* Beginning of September, and after.
Hab. Rich banks; by fences, rotten logs, &c. common. 4 to 6 feet high: flowers white; fruit dark purple.

Obs. The young shoots are much used, in the spring, as a substitute for asparagus. The root is endowed with active medical properties; but is seldom employed, here. See *Barton's Collections; Bigelow's Medical Botany*, &c. The ripe berries afford a handsome purple coloring matter; and have been used, in tincture, as a remedy in chronic rheumatism.

CLASS XI. POLYANDRIA.

ORDER, MONOGYNIA.

FLOWERS MOSTLY INFERIOR.

183. TILIA. *Nutt. Gen.* 454.

[Etymology obscure: fortasse "a *telum*, quia ejus lignum telis faciendis inservit." *Poerh.*]

CAL. 5 parted, deciduous. COR. petals 5. CAPS. globose, coriaceous, or horny, 1 seeded, opening at base.

T. GLABRA. *Ell.* Leaves roundish-cordate, acutely serrate, abruptly acuminate, glabrous; nut oval.
Synon. T. americana. *Willd. Mx. Arb.* T. canadensis. *Mx. Fl. Am. Vulgo*—Linn, or Linden. Bass wood.
Fl. Latter end of June. *Fr. mat.* Beginning of October.
Hab. Along Brandywine, frequent: rare elsewhere. 40, to 60 and 80 feet high: flowers yellowish white.

Obs. The Tilia may be easily recognized by its singular mode of inflorescence,—the peduncle being somewhat geniculately attached to the middle of an oblong, membranaceous *bracte;* and thence, to its base, apparently adnate to, or rather constituting, the middle rib of the same. The leaves of this species are often obliquely truncate at base. It is a handsome, stately tree, and much sought after to plant in front of houses,—especially in towns. The wood is white and soft, and is often wrought into ladles, spoons, and other utensils. Michaux (*Arb. Forest.*) informs us that the fibrous bark of the trunk, when macerated and prepared, is used in some parts of the U. S. in making a coarse cordage for domestic purposes. The finer bark has also been found to afford a valuable liniment, by maceration in cold water, for burns and scalds. See *Barton's Med. and Phys. Journal, Vol. I. part. 2. p. 31.*

184. HELIANTHEMUM. *Nutt. Gen.* 455.

[Gr. *Helios*, the sun, and *Anthemon*, a flower; the flowers opening, as is said, only in the sunshine.]

CAL. 5 leaved, the two exterior narrower. COR. petals 5. CAPS. 1 celled, 3 valved, opening at top.

H. CANADENSE. *Ell.* Leaves oblong-lanceolate, flat; racemes terminal, few-flowered; stamens inclined.
Synon. Cistus canadensis. *Willd. Big.* &c. *Vulgo*—Frost weed. Rock rose.
Fl. Middle of June. *Fr. mat.* Latter end of July.
Hab. Sterile hills: Barrens: rare elsewhere. 9 to 15 inches high: flowers yellow, large.

H. RAMULIFLORUM. *Mr.* Leaves lance-oval, margins revolute; flowers crowded on short branches.
Fl. Beginning of July, and after. *Fr. mat.* Beginning of August, and after.
Hab. Barren ridge, frequent: rare elsewhere. 1 to 2 feet high: flowers yellow, inconspicuous.

Obs. This species has much of the habit of Lechea major, except that the fruit is larger, and in more crowded glomerules.

185. TALINUM. *Nutt. Gen.* 458.

[Perhaps from the Gr. *thallo*, to be green; alluding to the verdant habit of the genus.]

CAL. 2 leaved. COR. petals 5, spreading. CAPS. 1 celled, 3 valved, many seeded. *Recept.* globose.

T. TERETIFOLIUM. *Nutt.* Leaves terete, subulate, carnose; peduncles elongated, naked, cymose.
Fl. Latter end of June till September. *Fr. mat.* September, and October.
Hab. Serpentine rocks, exclusively; Barren ridge, abundant. 4 to 10 inches high: flowers reddish purple.

Obs. This handsome little plant is remarkably circumscribed in its habitat. I have never met with it except where the Serpentine rock rises to the surface of the earth; and even there it is confined to the most naked and sterile spots. In such places, however, it may almost invariably be found in great abundance. The root is perennial, and hardy,—of a firm, fleshy consistence; generally much exposed, and of a reddish brown color, externally. The leaves are cylindrical, mostly incurved, and acute, one to two inches in length, and about a line in diameter, rather crowded, and often putting forth in fascicles from the root. The peduncles (for they are not strictly *scapes*,—being generally inserted on short, fleshy stems,) are slender, naked, elongated, and cymosely branched above; the pedicels clavate, somewhat resembling the stipes of the Caulophyllum,—and subtended by small membranaceous bractes, mostly opposite,—often in threes at the branches, forming a sort of involucre. The flowers appear in succession, opening in the middle of the day, and closing in the evening, not to expand again; the petals, shrivelling, and apparently twisting together, remain a considerable time on the germ. The style is the length of the stamens; the stigma trifid, spreading, and minutely pubescent. The capsule is triangular-ovate,—or often trigonous-turbinate—of three valves, with a little ridge in the middle of each valve, within, like the rudiment of a dissepiment. The seeds are sub-reniform, or rather somewhat cochleate; and *not arillate*,—therefore not exactly agreeing with the generic character, as given by Nuttall, and Willdenow. The annexed plate will afford a pretty good idea of the habit of the plant.

186. PORTULACA. *Nutt. Gen.* 457.

[An ancient name, of obscure etymology.]

CAL. half superior, bifid, compressed, persistent. COR. petals 5. CAPS. circumscissed, many seeded.

P. OLERACEA. *Ell.* Stem prostrate, branching, terete, glabrous; leaves cuneiform-obovate; flowers sessile.
Vulgo—Purslane. Garden Purslane.
Fl. Last of July, and after. *Fr. mat.* Last of August, and after.
Hab. Gardens, and cultivated lots: common. 6 to 15 inches long: flowers yellow.

Obs. The seeds are punctately indented; and, in figure, somewhat resemble those of Talinum. Although a common plant, I doubt its being a native here. It is sometimes used as a pot-herb: but is not much esteemed.

187. CHELIDONIUM. *Nutt. Gen.* 459.

[Gr. *Chelidon*, a swallow; flowering about the time that bird makes its appearance.]

CAL. 2 leaved, caducous. COR. petals 4. *Silique* linear, 2 valved, 1 celled. *Seeds* crested, numerous.

C. MAJUS. *Sm. Fl. Brit.* Leaves alternate, pinnate, lobed, lobes crenate; umbels axillary, pedunculate.
Vulgo—Celandine.
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Fence-rows; among rubbish, &c. frequent. 2 to 3 feet high: flowers yellow.

Obs. This foreigner has escaped from our gardens, and is becoming extensively naturalized. The deep yellow juice of this plant is a well known popular cure for warts, tetters, &c. but is scarcely worthy of notice.

Talinum Teretifolium

188. ARGEMONE. *Nutt. Gen.* 462.

[Gr. *Argema*, a disease of the eye; supposed to be cured by the plant.]

CAL. 3 leaved, caducous. COR. petals 6. *Stigma* sessile, capitate, lobed. CAPS. semi-valved.

A. MEXICANA. *Ell.* Leaves pinnatifid-lobate, spinose; flowers axillary; capsules 5 valved.
Vulgo—Prickly Poppy. Horned Poppy.
Fl. Beginning of July, and after. *Fr. mat.* Latter end of August, and after.
Hab. Gardens, and cultivated lots: not common. 1 to 3 feet high: flowers yellow, large.

Obs. This is a stranger here; but is becoming gradually naturalized, although some pains are taken to root it out.

189. SANGUINARIA. *Nutt. Gen.* 464.

[Lat. *Sanguis*, blood; alluding to the color of the juice of the plant.]

CAL. 2 leaved, caducous. COR. petals about 8. *Stig.* sessile, 2 grooved. CAPS. oblong, tapering at each end.

S. CANADENSIS. *Ell.* Leaves subreniform, sinuate-lobed, glaucous beneath; scape 1 flowered.
Vulgo—Red-root. Blood-root. Turmeric. Puccoon. Indian Paint. Blood-wort.
Fl. Beginning of April. *Fr. mat.* Middle of June.
Hab. Rich woodlands; meadows, &c. very common. 6 to 10 inches high: flowers white.

Obs. The capsules burst and disappear suddenly, when the seeds are ripe. The root is emetic, and otherwise medicinal. See *Dr. Downey's Inaugural Thesis*, 1803, *Philad. Barton's Collections*, &c.

190. PODOPHYLLUM. *Nutt. Gen.* 465.

[Gr. *Pous, podos*, a foot, and *Phyllon*, a leaf; its leaf resembling the web-foot of a duck.]

CAL. 3 leaved. COR. petals about 9. *Stig.* sessile, plicate, crenate. BERRY oval, 1 celled, many seeded.

P. PELTATUM. *Ell.* Leaves peltate-palmate, single, or two on a forked stem; flower solitary.
Vulgo—Hog-apple. May-apple. Wild Mandrake. Duck's-foot.
Fl. Beginning of May. *Fr. mat.* Latter end of August.
Hab. Rich woodlands; meadow banks, in patches: common. 12 to 18 inches high: flowers white.

Obs. The stem is often simple, bearing but one leaf,—and then produces no flower. The flower is only to be found on the *two leaved* plants, situated in the fork, on a short, slightly curved peduncle. The fruit is about the size and shape of a *Lime*; and when ripe, is esculent—but is not esteemed. The root affords a good substitute for Jalap, as a cathartic—(expertus loquor—) and not "*as Ipecacuanha*,"—as Pursh erroneously states.

191. NUPHAR. *Nutt. Gen.* 468.

[Gr. *Nouphar;* a name of obscure meaning.]

CAL. 5 or 6 leaved. COR. petals numerous; dorsally nectariferous. *Stig.* sessile, radiated. CAPS. carnose.

N. ADVENA. *Ph.* Leaves erect, cordate, lobes divaricate; calyx 6 leaved; stigma 13 rayed; capsule sulcate.
Synon. Nymphæa advena. *Willd. Mx. Muhl.* *Vulgo*—Spatter-dock, or Splatter-dock. Yellow Pond-lily.
Fl. Middle of May till October. *Fr. mat.* September, and after.
Hab. Ponds, and still waters; Brandywine: frequent 1 to 2 feet high: flowers yellow.

Obs. The root is creeping—the old ones sometimes very large—with numerous radicles on the under side, and bearing the marks of the petioles of former years on the upper side.

192. ASARUM. *Nutt. Gen.* 724.

["Vocatur ab *a* (Gr.) privativo, et *sairo*, orno; quasi planta nulli ornamento inserviens." *Boerh.*]

CAL. 3 or 4 cleft, superior, persistent. COR. 0. *Anthers* adnate to the sides of the filaments. CAPS. 6 celled.

A. CANADENSE. *Ell.* Leaves broad-reniform, in pairs; calyx woolly, deeply 3 parted, reflexed.
Vulgo—Wild Ginger. Colt's-foot. Asarabacca. White Snake-root.
Fl. Middle of May. *Fr. mat.* Middle of June.
Hab. Rich woodlands: frequent. 8 to 12 inches high: flowers dingy purple.

Obs. The flower is solitary, on a short peduncle in the fork of the leaves; and usually buried under old decayed leaves, &c. so as to escape common observation. The root is strongly aromatic, and may perhaps possess medical virtues. Professor Barton, in his *Collections for a Materia Medica*, says "the expressed juice of the fresh leaves is a powerful emetic."—I cannot see the propriety of transferring this genus to the Class *Gynandria*, as Messrs. Pursh and Nuttall have done. It is so distinct in habit from plants of that class, that I am confident a student would never think of looking for it there.

ORDER, DI-PENTAGYNIA.

193. CIMICIFUGA. *Nutt. Gen.* 474.

[Lat. *Cimex*, a bug, and *fugio*, to expel; from its supposed virtues.]

CAL. 4 or 5 leaved. COR. petals 4. CAPS. 1 to 5, oblong, opening along a lateral suture, many seeded.

C. RACEMOSA. *Ell.* Monogynous; leaves decompound; racemes virgately paniculate; capsule ovate.
Synon. C. serpentaria. *Ph.* Actea racemosa. *Willd. Muhl. Mx.* *Vulgo*—Black Snake-root.
Fl. Latter end of June. *Fr. mat.* Middle of September.
Hab. Rich woodlands: common. 4 to 6 feet high: flowers white.

Obs. The root is somewhat mucilaginous and astringent; and is a very popular medicine, both for man and beast. It is used, in infusion, or decoction, chiefly as a pectoral medicine: and it is said to have been found useful in the disease of cattle, called the murrain. Its virtues, however, are probably over-rated—as is usually the case with popular remedies, from the want of a due degree of discrimination, as to their effects, and the diseases in which they are employed.

194. AQUILEGIA. *Nutt. Gen.* 473.

[Lat. *Aquila*, an Eagle; its nectaries having a fancied resemblance to eagle's claws.]

CAL. 0. COR. petals 5. *Nectaries* 5, corniculate, situate between the petals. CAPS. 5, distinct.

A. CANADENSIS. *Ell.* Spurs straight; stamens exserted; leaves biternate, and ternate, glaucous beneath.
Vulgo—Wild Columbine.
Fl. Beginning of May. *Fr. mat.* Latter end of July.
Hab. Rocky banks, along Brandywine: frequent. 12 to 18 inches high; flowers red, tinged with yellow.

195. HYPERICUM. *Nutt. Gen.* 476.

[A name of obscure meaning: *Boerh.* says, "*Hypereikon*, (Gr.) quasi herba, cujus imago eminet."]

CAL. 5 parted, equal. COR. petals 5. *Filam.* slightly united at base. CAPS. ovate, as many cells as styles.

Flowers Trigynous.

H. PERFORATUM. *Ph.* Stem ancipital; leaves oblong, pellucid-punctate; petals twice as long as the calyx.
Vulgo—Saint John's wort.
Fl. Beginning of June, and after. *Fr. mat.* Latter end of September.
Hab. Fields, and pastures; common. 1 to 3 feet high: flowers yellow.

Obs. This is a foreigner, and a pernicious weed in our pastures: often producing troublesome scabby sores upon horses and horned cattle, where it comes in contact with them—especially those which are *white*, or have white feet and noses. It would seem that the *dew* which collects on the plant, becomes active in this way. I have seen the backs of white cows covered with sores, wherever the bushy ends of their tails had been applied, after draggling through the St. John's wort.—The *tincture* of the flowers and upper leaves is said to be useful in some complaints of the stomach and bowels. See *Barton's Med. and Phys. Journal, Vol.* 1. *part* 2. *p.* 54.

H. CORYMBOSUM. *Ph.* Stem terete, black-punctate; leaves amplexicaul, oblong-oval, obtuse.
Synon. H. maculatum. *Ell. Mx.*
Fl. Beginning of July, and after. *Fr. mat.* Last of September.
Hab. Woodlands, and fields: Bath, &c. frequent. 1½ to 2 feet high: flowers yellow, smallish.

H. PARVIFLORUM. *Ell.* Stem 4 angled; leaves ovate-oblong, sub-cordate; petals shorter than the calyx.
Synon. H. quinquenervium. *Mx.* H. mutilum? *Willd.*
Fl. Latter end of July, and after. *Fr. mat.* Beginning of October.
Hab. Wet, low grounds; along rivulets: Barrens, &c. frequent. 6 to 12 inches high: flowers yellow.

H. CANADENSE. *Ell.* Stem 4 angled; leaves linear, tapering at base; flowers solitary; capsules long, conic.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Moist, gravelly places: Thomas Hoopes's: frequent. 9 to 18 high: flowers yellow, capsules red.

ORDER, POLYGYNIA.

196. LIRIODENDRON. *Nutt. Gen.* 480.

[Gr. *Leirion*, a lily, and *Dendron*, a tree; the flowers resembling the lily, in form.]

CAL. 3 leaved. COR. petals mostly 6. *Samaræ* sublanceolate, 1 or 2 seeded, imbricated in a cone.

1. TULIPIFERA. *Mx. arb.* Leaves 4 lobed; or angularly truncate at the end, with two side lobes.
Vulgo—Poplar. Tulip poplar, or Tulip tree. White wood. Canoe wood.
Fl. Last of May. *Fr. mat.* Last of October.
Hab. Rich woodlands, &c. common. 80 to 120 feet high: flowers greenish yellow, tinged with red.

Obs. This magnificent tree is justly considered one of the greatest ornaments of our North American forests. The species comprises two *varieties*, called *yellow*, and *white poplar;* which are scarcely to be distinguished by any external marks—the difference being chiefly in the color and texture of the wood. The *yellow* poplar is deemed the more valuable of the two, for most purposes,—being more mellow to work, and also more durable, when exposed to the weather. The wood of *both* is extensively wrought, by cabinet-makers, and others; and is converted to a variety of uses—though its hygrometrical properties render it rather inconvenient, in many instances, during damp weather. The *bark* of this tree is a valuable tonic: for an account of which, See *Dr. P. K. Rogers' Inaugural Thesis, Philad.* 1802,—and the *Materia Medica* of the *Bartons.* The *leaves*, also, are said to afford relief, when applied externally, in cases of gout and rheumatism. See *Barton's Med. and Phys. Journal. Vol.* I. *part* I. *p.* 82.—I have remarked that the fruit of the wild Strawberry (*Fragaria virginiana,*) is always ripe when this tree is in full bloom.

197. CLEMATIS. *Nutt. Gen.* 483.

[Gr. *Klema*, a twig ,or runner; from its pliant, climbing stem.]

CAL. 0. COR. petals mostly 4. SEEDS compressed, caudate; cauda mostly plumose.

C. VIRGINIANA. *Ell.* Dioicous; climbing; leaves ternate; leaflets ovate, incised-dentate, acuminate.
Synon. C. virginica. *Ph. Nutt.* *Vulgo*—Virgin's Bower. Traveller's Joy.
Fl. Beginning of August. *Fr. mat.* Beginning of October.
Hab. Fence-rows; and thickets, in low grounds: frequent. 10 to 15 feet long: male flowers white.

Obs. The female plants are remarkable for the silken appearance of the long, plumose styles, which crown the fruit.

198. ANEMONE. *Nutt. Gen.* 484.

[Gr. *Anemos*, wind; the flower being supposed to open only when the wind blows.]

CAL. 0. COR. petals 5 to 9, or more. SEEDS numerous, mucronate, rarely caudate.

A. NEMOROSA. *Ell.* Stem 1 flowered; stem leaves biternate; leaflets cuneate, incised-lobate, dentate.
Vulgo—Wind-flower. Wood Anemone.
Fl. Middle of April, and after. *Fr. mat.* Latter end of May.
Hab. Moist woodlands; about roots of trees: frequent. 6 to 10 inches high: flowers reddish white.

Obs. This is the *variety, quinquefolia*, with the lateral leaflets deeply two parted; which Barton, (*in Flor. Philad.*) after Willdenow, and Muhlenberg, considers a distinct species; but which Michaux, Pursh, and others, regard as not entitled to that distinction.

A. THALICTROIDES. *Ph.* Umbel involucrate; involucre 6 leaved; radical leaves biternate.
Synon. Thalictrum anemonoides. *Mx. Ell.* *Vulgo*—Rue Anemone.
Fl. Latter end of April. *Fr. mat.* Middle of June.
Hab. Woodlands: very common. 6 to 10 inches high: flowers white.

Obs. The botanical character of this plant is so equivocal, that our best botanists are divided in opinion whether it ought to be ranked with Anemone, or Thalictrum.

A. VIRGINIANA. *Ell.* Dichotomous; leaves biternate, upper ones opposite; peduncles virgate, 1 flowered.
Fl. Latter end of June, and after. *Fr. mat.* Beginning of September, and after.
Hab. Fence-rows, and roadsides: frequent. About 2 feet high: flowers greenish white; seeds woolly.

199. THALICTRUM. *Nutt. Gen.* 485.

[Supposed to be derived from the Gr. *thallo*, to be green; alluding to its verdant habit.]

Mostly Dioicous: CAL. 0. COR. petals 4 or 5. *Stamens* long. SEEDS ecaudate, striate, terete.

T. DIOICUM. *Ph.* Leaves supra-decompound; leaflets roundish-cordate, obtuse-lobate, glaucous beneath.
Synon. T. lævigatum. *Mx.* *Vulgo*—Meadow Rue.
Fl. Latter end of April, and after. *Fr. mat.*
Hab. Woodlands: Bath woods: frequent. 9 to 15 inches high: flowers pale purple.

Obs. I have experienced all the difficulties remarked by Michaux, in determining the species of Thalictrum. This, I have little doubt, is his T. *lævigatum*; and yet it agrees, in some respects, so well with the T. *purpurascens*, of Pursh, that I at one time supposed it to be that species.

T. RUGOSUM? *Ph.* Stem striate; leaflets veined, sub-trilobate, or entire, cuneate, and oval.
Fl. Latter end of June, and after. *Fr. mat.* Beginning of September.
Hab. Woodlands, and swamps: Bath: frequent. 3 to 5 feet high: flowers white.

T. PUBESCENS? *Ph.* Stem striate; leaflets ovate, or subcordate, mostly 3 lobed; lobes mucronate.
Synon. T. polygamum? *Muhl.* T. revolutum? *Ell.*
Fl. Beginning of July, and after. *Fr. mat.* Middle of September, and after.
Hab. Swamps, and shaded rivulets: Wollerton's: frequent. 4 to 6 feet high: flowers white.

Obs. This resembles the preceding; but the leaflets are more regularly three lobed, and the lobes, or segments, are mucronate,—or rather terminate in a small, abrupt acumination.

200. CALTHA. *Nutt. Gen.* 487.

[Gr. *Kalathos*, a basket; from a fancied resemblance of the corolla to a golden basket.]

CAL. 0. COR. petals 5 to 9. *Nectary* 0. CAPSULES several, many seeded.

C. PALUSTRIS. *Ph.* Erect; corymbose; leaves cordate-reniform, acutely crenate, lobes spreading.
Vulgo—Marsh Marygold. Colt's-foot. Meadow Cowslip.
Fl. Middle of April. *Fr. mat.* Beginning of June.
Hab. Wet meadows, swampy springs, &c. frequent. 5 to 10 inches high: flowers deep yellow.

Obs. I have specimens, from Patton's low grounds, in this Borough, which appear to be the C. *integerrima*, of Pursh,—with leaves entire, or obsoletely crenate, and the sinus closed; but I doubt their being any thing more than mere *varieties*.
A syrup, prepared from this plant, is a popular remedy for coughs; but I am unacquainted with its virtues.

201. HEPATICA. *Nutt. Gen.* 490.

[Gr. *Hepar*, the liver; the lobes of its leaves being supposed to resemble those of the liver.]

CAL. 3 leaved, somewhat involucre-like. COR. petals 6 to 9. SEEDS naked.

H. TRILOBA. *Ell.* Leaves 3 lobed, lobes roundish, entire; scapes 1 flowered, often clustered.
Synon. Anemone hepatica. *Willd. sp. pl. Mx.* &c. *Vulgo*—Liver-wort. Liver-leaf.
Fl. Beginning of April. *Fr. mat.*
Hab. Woodlands: very common. About 6 inches high: flowers blue,—sometimes purple, or white.

202. RANUNCULUS. *Nutt. Gen.* 491.

[Lat. diminutive of *Rana*, a frog; a name, says Dr. Smith, whose origin is as obvious as its sense is obscure.]

CAL. 5 leaved. COR. petals 5, each with a melliferous scale, or pore, on the claw. SEEDS naked, numerous.

R. FLAMMULA. *Ph.* Glabrous; declinate; lower leaves petiolate, oval-lanceolate; upper lance-linear.
Vulgo—Spear-wort.
Fl. Middle of July, and after. *Fr. mat.* Middle of September.
Hab. Wet, miry places: forks of Brandywine: not common. 1 to 2 feet high: flowers yellow, small.

Obs. This plant does not precisely agree with the descriptions of the European species; but perhaps it is not specifically distinct. It is remarkably acrid, when chewed, and probably worthy of notice, in a medical point of view. Dr. Withering asserts, from his own experience, that the distilled water of the European plant is preferable to any other medicine yet known in cases where instantaneous vomiting is desirable,—as where poisons have been swallowed, &c

R. ABORTIVUS. *Ell.* Glabrous; radical leaves cordate-reniform, crenate; cauline cleft into linear lobes.
Fl. Latter end of April, and after. *Fr. mat.* July, and after.
Hab. Woodlands, and moist grounds: frequent. 9 to 15 inches high: flowers yellow, petals minute.

R. SCELERATUS. *Ell.* Glabrous; radical leaves palmate-lobed; cauline 3 parted, segments cuneate.
Vulgo—Celery-leaved Crow-foot.
Fl. Middle of May, and after. *Fr. mat.*
Hab. Moist places; along rivulets, &c. frequent. 12 to 18 inches high: flowers yellow.

R. PENNSYLVANICUS? *Ell.* Hirsute; radical leaves ternate, trifid, incised; cauline lanceolate.
Fl. Latter end of April, and after. *Fr. mat.*
Hab. Woodlands: Patton's; Bath, &c. frequent. 9 to 15 inches high: flowers yellow.

Obs. I have several specimens which approach the descriptions given of this species, and yet none of them exactly accord.

R. BULBOSUS. *Ph.* Hirsute; leaves compound, ternate, trifid, incised; calyx reflexed; root bulbous.
Vulgo—Butter-cup. Bulbous Crow-foot.
Fl. Middle of May. *Fr. mat.* Beginning of July.
Hab. Pastures; N. H. Sharples's; Brandywine: frequent. 12 to 18 inches high: flowers deep yellow.

Obs. This is a foreigner. The root is highly acrid, and has been recommended as a rubefacient.

R. HISPIDUS. *Ell.* Very hirsute; leaves deeply 3 parted, segments acutely lobed; calyx appressed.
Fl. Latter end of May. *Fr. mat.*
Hab. Creek banks: near Hatch's factory: frequent. 1 foot high; flowers greenish yellow, small.

R. FLUVIATILIS. *Big. Fl. Bost.* Leaves all dichotomously capillaceous; stem swimming.
Synon. R. pantothrix. *Ell.* *Vulgo*—River Crow-foot.
Fl. Middle of June till August. *Fr. mat.*
Hab. Running waters: Brandywine: frequent. About 1 foot long: flowers yellowish white.

CLASS XII. CALYCANDRIA.*

ORDER, MONOGYNIA.

203. RIBES. *Nutt. Gen.* 217.
[An ancient Arabian name, of uncertain meaning.]

CAL. superior, 5 cleft. COR. petals 5, small. *Stam.* 5. *Style* bifid. BERRY many seeded.

R. FLORIDUM. *Ph.* Leaves punctate both sides; racemes pendulous; bractes longer than the pedicels.
Vulgo—Pennsylvania Black Currant.
Fl. Beginning of May. *Fr. mat.* Latter end of July.
Hab. Roadsides: near Job Darlington's: not common. 2 to 4 feet high: flowers greenish yellow; fruit black.

Obs. As the genus Ribes accords with the *essential character* of this class, I have taken the liberty to transfer it hither, from Pentandria. I cannot help thinking that this is the natural and proper location of the genus, in the *Sexual System*; and that nothing but the *name*, ICOSANDRIA, prevented Linnæus himself from arranging it in that class, with its kindred genera. I am strengthened in this opinion by the circumstance, that he did place the genus in his *natural order* of *Pomaceæ*,—which consists exclusively of calycandrous plants. Names, undoubtedly, have considerable influence on the mind: and when their obvious meaning not only tends to mislead, but produces an actual violation of fundamental principles, in the arrangement of objects, the interests of science would seem to justify an attempt to introduce a more appropriate nomenclature.

204. CERASUS. *Juss. Gen. Pl. p.* 340.
[Lat. *Cerasus*, a Cherry; the name of a town of Natolia, whence that fruit was derived.]

CAL. inferior, 5 cleft, deciduous. COR. petals 5. DRUPE globose. *Nut* roundish, smooth.

C. VIRGINIANA. *Mx. Arb.* Leaves oval-oblong, acuminate, serrate; racemes elongated, erect.
Synon. Prunus virginiana. *Nutt. Willd. Ph. Ell.* &c. *Vulgo*—Wild Cherry.
Fl. Middle of May. *Fr. mat.* Middle of August.
Hab. Fence-rows; Creek banks, &c. frequent. 30 to 60 feet high; flowers white, fruit purplish black.

Obs. The *wood* of this tree is handsome, and is much used by Cabinet makers, in the manufacture of household furniture. An infusion of the *bark* is a valuable tonic—especially in those cases of debility which often succeed catarrhal affections—as I have abundantly experienced, in my practice. Although but few botanists have followed Jussieu, in making a generic distinction between the Cherry and Plum, I incline to think there is quite as much ground for it, in nature, as there is for separating the Hickory from the Walnut, Chimaphila from Pyrola, Castanea from Fagus, and many other instances. The most superficial observer cannot fail to be struck with the natural grouping, and family difference, of the Plum and Cherry tribes.

205. PRUNUS. *Natt. Gen.* 431.
[The latin name for a Plum; very ancient, and of unknown origin.]

CAL. inferior, 5 cleft, deciduous. COR. petals 5. DRUPE mostly oval, large. *Nut* ovate, subcompressed, acute.

P. AMERICANA. *Marsh.* Leaves oblong-oval, acuminate, sharply serrate, veined; umbels 2 to 4 flowered.
Synon. P. nigra? *Muhl.* *Vulgo*—Red Plum. Yellow Plum. Brandywine Plum.
Fl. Middle of April. *Fr. mat.* Last of August.
Hab. Creek banks, and fence-rows: frequent. 8 to 15 feet high: flowers white; fruit reddish yellow.

Obs. This is a rugged, branching little tree. In its wild state, it is frequently sterile, and when it does bear, the fruit is rather small and acerb. But under proper culture, the fruit is large and luscious—though

* From *Kalyx*, the flower cup, and *Aner, andros*, male; *Stamens inserted on the Calyx*:—a name suggested for this class, (ICOSANDRIA, *Linn.*) which seems properly to comprise all plants with hermaphrodite flowers, in which *the calyx is a one-leaved staminiferous perianth.* See the Preface to this catalogue.

coated with a thick coriaceous skin. I have never met with the tree out of this vicinity; and have been under the impression that it was not described by any one, except *Marshall*. I certainly should not have expected to find it under the specific name *nigra*, if Dr. Muhlenberg's catalogue had not directed my attention to that species, by the subjoined English name, "*yellow* plum." I still think it cannot be the *P. nigra*, of Aiton, Willdenow, Persoon, &c. for they seem evidently to refer to a species of *Cherry*, properly so called. This species, though clearly distinct, approaches nearer to the *Chicasa plum*, than to any other which I have seen.

206. CUPHEA. *Nutt. Gen.* 434.

[Gr. *Kuphos*, crooked, or gibbous: in reference to the capsule.]

CAL. tubular-ventricose. COR. petals 6. CAPS. 1 celled, opening lengthwise with the calyx. *Seeds* lenticular.

C. VISCOSISSIMA. *Ell.* Viscid; leaves opposite, petiolate, ovate-oblong; peduncles short: calyx striate.
Fl. Middle of August, and after. *Fr. mat.* Middle of September, and after.
Hab. Gravelly soils: frequent: abundant near *Paoli Monument*. 9 to 18 inches high: flowers deep purple.

Obs. The whole plant is remarkably clammy. The seeds burst out before maturity, through a longitudinal opening in the capsule and calyx, and stand exposed on a columnar receptacle, on short pedicels,—where the early ones ripen before the plant has done flowering.

207. COMANDRA. *Nutt. Gen.* 233.

[Gr. *Kome*, a head of hair, and *Aner*, male; alluding to the structure of the anthers.]

CAL. tubular-campanulate. COR. petals 5, calycine, persistent. *Stam.* 5. CAPS. valveless, 1 seeded.

C. UMBELLATA. *Nutt.* Leaves oblong; umbels axillary, 3 to 5 flowered; common peduncles long.
Synon. Thesium umbellatum. *Willd. Ph. Ell.* &c. *Vulgo*—Bastard Toad-flax.
Fl. Latter end of May. *Fr. mat.* Last of August.
Hab. Sterile banks: R. Strodes; Barrens: not common: 9 to 15 inches high: flowers white.

Obs. It will readily be perceived that the principle assumed, relative to this class, has induced the transfer of this genus hither, from Pentandria. It is done with much diffidence: though I confess it seems to me to have as much claim to be arranged here, as the genus Cuphea.

ORDER, DI-PENTAGYNIA.

208. AGRIMONIA. *Nutt. Gen.* 436.

[Etymology obscure: supposed to be corrupted from *Argemone*—which see.]

CAL. inferior, 5 cleft, calyculate. COR. petals 5. *Styles* 2. SEEDS 2, enclosed in the base of the calyx.

A. EUPATORIA. *Ell.* Hirsute; leaves interruptedly pinnate, terminal leaflet petiolate; spike virgate.
Vulgo—Agrimony.
Fl. Middle of July, and after. *Fr. mat* Last of September.
Hab. Borders of woods; and moist, low grounds: frequent. 2 to 3 feet high: flowers yellow, small.

209. CRATÆGUS. *Nutt. Gen.* 437.

[Gr. *Kratos*, strength: from the strength, or firmness of the wood. *De Theis.*]

CAL. superior, 5 cleft. COR. petals 5. *Styles* 1 to 5. BERRY farinaceous. *Seeds* 1 to 5, bony.

C. OXYACANTHA. *Wg.* Leaves obtuse, incised-lobate, or trifid, and cuneate; lobes serrate; calyx hairy.
Synon. Mespilus oxyacantha. *Sm. Fl. Brit.* *Vulgo*—Haw-thorn. Quick-set. English Thorn.
Fl. Middle of May. *Fr. mat.* Latter end of October.
Hab. Roadside, 1 mile below Dilworth-town: rare. 10 to 15 feet high: flowers white; fruit red, small.

Obs. This is a foreigner; and is rare in this vicinity. Those specimens which I have examined, are the *monogynous* variety, noticed by Dr. Withering. This thorn is preferred in England, for *hedging*; but has rarely been used for that purpose, in our country,—or, at least, in this part of it. Our farmers generally prefer the *C. populifolia*, or Washington Thorn; and the *C. crus galli*,—the Cock spur, or New Castle Thorn. All the species here enumerated, are *spinose*.

C. COCCINEA. *Ell.* Pentagynous; leaves ovate, lobed, acutely serrate; petioles and calyx glandular.
Fl. Middle of May. *Fr. mat.* Middle of September.
Hab. Moist woodlands, and thickets: Bath: frequent. 6 to 8 feet high: flowers white; fruit red, large.

C. GLANDULOSA? *Ph.* Sub 3-gynous; leaves obovate-cuneiform, serrate, shining; calyx glandular.
Synon. Mespilus cuneiformis? *Marshall.*
Fl. Beginning of May. *Fr. mat.* Middle of September.
Hab. Brandywine, below Wistar's Bridge; frequent. 10 to 15 feet high: flowers white: fruit red.

C. CRUS GALLI. *Ph.* Sub 2-gynous; leaves oblong-cuneate, serrate, subsessile, shining, coriaceous.
Synon. Mespilus crus galli. *Marshall.* *Vulgo*—Cock-spur Thorn. New-Castle Thorn.
Fl. Beginning of June. *Fr. mat.* Middle of October.
Hab. Fence-rows, &c. R. Strodes: frequent. 10 to 15 feet high: flowers white; fruit reddish brown.

Obs. I find this species often *monogynous*. It is extensively used, in New-Castle county, (Del.) for *hedging;* and, when properly managed, makes a very substantial hedge. In this immediate vicinity, however, the C. *populifolia* is most generally used. I think it probable we have some other species of Cratægus indigenous here; but I have not ascertained them satisfactorily.

☞ For C. POPULIFOLIA, or Washington Thorn,—See appendix of cultivated plants.

210. ARONIA. *Natt. Gen.* 440.

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CAL. superior, 5 toothed. COR. petals 5. BERRY 5 to 10 celled; cells 1 or 2 seeded. *Seeds* cartilaginous.

A. ARBUTIFOLIA. *Ell.* Leaves obovate, crenate-dentate, midrib glandular above; flowers corymbose.
Synon. Pyrus arbutifolia. *Willd. Ph.* Mespilus arbutifolia. *Mx.* *Vulgo*—Choke-berry.
Fl. Middle of May. *Fr. mat.* Latter end of July.
Hab. Moist woodlands: Patton's: frequent. About 2 feet high: flowers reddish white; fruit dark red.

A. BOTRYAPIUM. *Ell.* Leaves subcordate-oval, cuspidate; racemes lax, elongated; petals linear-oblong.
Synon. Pyrus botryapium. *Willd. Ph.* Mespilus canadensis. *Mx.* *Vulgo*—Service berry. Shad bush.
Fl. Middle of April. *Fr. mat.* Latter end of June.
Hab. Rich, moist woodlands: frequent. 8 to 15, or 20 feet high: flowers white; fruit dark purple.

Obs. This plant has had many different names imposed upon it, by the Botanists. The vulgar name of "*Shad bush,*" arose from the circumstance of its being always in flower, at the season of taking that fish. It is a showy little tree, when in bloom; and the fruit is esteemed by some.

A. OVALIS. *Ell.* Leaves oblong-oval, acute; racemes erect; petals obovate; calyx-segments pubescent.
Synon. Pyrus ovalis. *Willd. Ph.* *Vulgo*—Medlar-bush.
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Fence-rows, &c. Seth Evenson's: not common. 2 to 4 feet high: flowers white; fruit dark purple.

Obs. Michaux makes this a *variety* of the preceding (var. *obovalis*); but it seems to be specifically distinct.

211. MALUS. *Juss Gen. Pl. p.* 334.

[The Latin name for an apple tree.]

CAL. superior, 5 cleft. COR. petals 5. *Styles* connate at base. POME spheroid, umbilicate at each end.

M. CORONARIA. *Mx. arb.* Leaves broad-oval, rounded at base, sub-angled; peduncles corymbose.
Synon. Pyrus Coronaria. *Natt. Willd. Ph. Ell.* &c. *Vulgo*—Crab Apple.
Fl. Beginning of May. *Fr. mat.* Last of September.
Hab. Fence-rows; borders of thickets, &c. frequent. 10 to 15 feet high: flowers pale rose red.

Obs. The flowers, and ripe fruit, are remarkably fragrant. The fruit is frequently collected, and used by our house-wives, in making *preserves*. There seems to me to be a sufficient distinction between the Apple, and Pear, to warrant their separation.

212. SPIRÆA. *Nutt. Gen.* 442.

[Supposed to be from the Gr. *Speira,* a cord; in allusion to its flexible branches.]

CAL. inferior, 5 cleft. COR. petals 5, roundish, equal. *Stam.* exserted. CAPS. 3 to 12, 2-valved, 1 celled.

S. SALICIFOLIA. *Ph.* Leaves ovate-oblong, or obovate, sharply serrate; racemes paniculate, terminal.
Synon. S. tomentosa alba. *Marshall.* S. alba. *Muhl.* *Vulgo*—Pipe-shank. Meadow Sweet.
Fl. Latter end of June, and after. *Fr. mat.* Last of September.
Hab. Moist thickets, and low grounds: frequent. 4 to 6 feet high: flowers pale red, or reddish white.

Obs. This is the variety, *latifolia*, of Pursh. The leaves have but a remote resemblance to those of the *willow.*

S. OPULIFOLIA. *Ph.* Trigynous; leaves subovate, lobate; corymbs crowded; capsules inflated.
Vulgo—Nine-bark. Snow-ball leaved Spiræa. Hard-hack.
Fl. Beginning of June. *Fr. mat.* Latter end of August.
Hab. Brandywine: Amos Brinton's dam: rare. 3 to 5 feet high: flowers reddish white.

213. GILLENIA. *Nutt. Gen.* 443.

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CAL. 5 toothed. COR. petals 5, lanceolate, tapering at base. *Stam.* few, included. CAPS. 5, connate.

G. TRIFOLIATA. *Ell.* Leaves ternate, lanceolate, serrate; stipules linear, entire; panicles loose, terminal.
Synon. Spiræa trifoliata. *Willd. Mx. Ph.* &c. *Vulgo*—Indian Physic. Bowman's root. Ipecac.
Fl. Beginning of June. *Fr. mat.* Beginning of August.
Hab. Woodlands: Patton's; Bath, &c. frequent. 2 to 4 feet high: flowers white.

Obs. This plant has considerable reputation for its medical properties,—particularly as an emetic. It is also said to be cathartic, and tonic, according to the dose, or mode of exhibition. See *Schæpf*, the *Bartons*, and other writers on American Materia Medica.

ORDER, POLYGYNIA.

214. ROSA. *Nutt. Gen.* 444.

[Supposed to be from the Celtic, *Rhos*, or *rhudd*, red; the prevailing color of the flowers. See *De Theis.*]

CAL. urceolate; neck contracted; border 5 cleft. COR. petals 5. SEEDS hispid, lodged in the *berried* calyx.

R. PARVIFLORA. *Ell.* Germs and peduncles hispid; stipular prickles straight; flowers mostly in pairs.
Synon. R. humilis. *Marsh.* R. caroliniana. *Mx.* *Vulgo*—Dwarf Wild Rose.
Fl. Beginning of July. *Fr. mat.* Last of September.
Hab. Borders of woods; fence-rows, &c. frequent. 1 to 2 feet high: flowers pale red; fruit globose.

R. CORYMBOSA. *Fl. Phil.* Germs & peduncles subhispid; stipular prickles subuncinate; flowers corymbose.
Synon. R. carolina. *Willd. Ph. Ell.* R. pennsylvanica. *Mx.* *Vulgo*—Swamp Rose.
Fl. Beginning of June, and after. *Fr. mat.* Last of September.
Hab. Low, swampy grounds, and thickets: frequent. 4 to 6 feet high: flowers red; fruit globose.

Obs. The stipular prickles, in this species, are slightly *hooked*, and not "near an inch long."—as rendered in *Flor. Philad.* There appear to be some *varieties* of both the foregoing species, in this vicinity—and possibly there may be other native species; but I have not ascertained any, to satisfaction.

R. SUAVEOLENS. *Ell.* Germs, peduncles and petioles glandular-hispid; prickles recurved; leaflets elliptic.
Synon. R. rubiginosa. *Willd. Muhl. Nutt.* R. suavifolia. *Lightf.* *Vulgo*—Sweet Briar. Eglantine.
Fl. Middle of June. *Fr. mat.* Last of September.
Hab. Sandy banks; roadsides, &c. frequent. 5 to 8 feet high: flowers pale red; fruit ovate.

Obs. This well known rose, so much admired for its fragrant leaves, is pretty frequent here; though Mr. Nuttall says it is "certainly not native." It usually attains the height above mentioned; but where pains are taken to train its slender stems, it often reaches to twice or thrice that height.

215. RUBUS. *Nutt. Gen.* 445.

[Lat. *Ruber*,—or Celtic, *Rub*, red; from the color of the fruit, or branches of the plant.]

CAL. inferior, 5 cleft. COR. petals 5. BERRY compound; acines mostly juicy, 1 seeded.

R. VILLOSUS. *Ell.* Stem angled; leaves digitate, in 3's or 5's; leaflets ovate, acuminate, hairy both sides.
Synon. R. fruticosus. *Marsh.* *Vulgo*—Common Black-berry bush. Briar.
Fl. Middle of May. *Fr. mat.* Middle of July.
Hab. Old fields, fence-rows, &c. common. 4 to 8 feet high: flowers white; fruit black.

Obs. The root is somewhat astringent; and the infusion is a popular remedy in diarrhœas, and mild dysenteries. The berries afford a pleasant *jam*, which is also considered salutary, in such cases. The plant is rather troublesome on our farms, and is diligently rooted out of the fields, by neat farmers.

R. OCCIDENTALIS. *Ell.* Stem terete, glaucous; leaves ternate, hoary-tomentose beneath; racemes terminal.
Vulgo—American Raspberry. Black Raspberry. Thimble-berry.
Fl. Latter end of May. *Fr. mat.* Middle of July.
Hab. Fence-rows; borders of woods, &c. frequent. 4 to 8 feet long; flowers white; fruit dark purple.

Obs. The slender stems are often so much curved, that the top descends to the earth, and takes root. The fruit of this species, though not very sprightly, has a pleasant flavor, and is generally admired.

R. TRIVIALIS. *Ell.* Procumbent; prickles recurved; leaves mostly ternate; pedicels solitary, axillary, long.
Synon. R. procumbens. *Muhl. Bart. Fl. Phil.* *Vulgo*—Dew-Ferry. Running Briar.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Sterile, neglected fields, &c. frequent. 4 to 6, or 8 feet long: flowers white; fruit black, large.

Obs. The stipules, in my specimens, are *lanceolate*, and not "subulate." There are, however, probably some *varieties* of this species. The fruit is very fine. The root of this is also astringent; and is often used in similar cases with that of R. villosus.

R. FLAGELLARIS. *Ph.* Procumbent; leaves ternate; middle one cuneate at base; flowers terminal.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Woodlands; and along shaded rivulets; frequent. 2 to 4 feet long: flowers white; fruit black.

Obs. This is made a variety of the foregoing, by some botanists; but it seems to be pretty distinct. The whole plant is more delicate, and rather more glabrous. The ripe berries, as remarked by Dr. W P C Barton, are rarely perfect—a few only of the acines arriving at maturity. It is possible, however, that all this difference may result from its growing in the woods—where I have most commonly observed it.

R. OBOVALIS? *Ph.* Procumbent; stem very hispid; leaves ternate, obovate, ovate, and rhomboidal.
Fl. Latter end of May. *Fr. mat.*
Hab. Woodlands: Barrens, above S. Stringfellow's: not common. 2 to 4 feet long; flowers white.

Obs. I was inclined to refer this to the R. *hispidus*, of Willd. and Pursh; but Mr. Schweinitz, to whom I submitted my specimen, supposed it to be R. obovalis. Perhaps they are really not distinct.

☞ The R. ODORATUS, I have not found growing native in this vicinity; but Dr. Baldwin informed me he had seen it on the Brandywine, near the factories of the Messrs. Duponts.

216. GEUM. *Nutt. Gen.* 448.

[Gr. *gaio*, to be splendid; or *geuo*, to relish, or give a good taste; from its appearance, or properties.]

CAL. inferior, 10 cleft, alternate segments smaller. COR. petals 5. SEEDS awned; awns mostly geniculate.

G. ALBUM. *Ell.* Radical leaves pinnate; cauline 3 lobed; stipules incised; petals as long as the calyx.
Vulgo—Avens. Herb Bennet (a corruption of the French, *herbe benite*).
Fl. Beginning of July. *Fr. mat.* Latter end of September.
Hab. Rich Woodlands; thickets, &c. frequent. About two feet high: flowers white.

Obs. The three-lobed stem-leaves considerably resemble those of the currant bush.

G VIRGINIANUM? *Ell.* Radical and lower leaves ternate, upper lanceolate; petals shorter than the calyx.
Fl. Middle of June, and after. *Fr. mat.* Beginning of September, and after.
Hab. Roadsides; fence-rows, &c. frequent. 2 to 3 feet high: flowers white, or *yellow*.

Obs. Some of my specimens are quite hirsute,—the radical leaves often quinate—the flowers small, and *yellow*: possibly only varieties.

☞ I have other specimens, (both hirsute, and nearly glabrous,) with the leaves *all ternate*, except the small upper ones,—the petals as long as the calyx, and white. Mr. Schweinitz, who examined them, believes them to be "a new species, not at all described," which "might justly be called G. *ternatum*." They seem to be intermediate between the two foregoing; but not suiting the descriptions of either.

217. POTENTILLA. *Nutt. Gen.* 449.

[Lat. *Potentia*, power; from its imaginary medical powers.]

CAL. inferior, 10 cleft, spreading. COR. petals 5. SEEDS roundish, naked, attached to a dry receptacle.

P. NORWEGICA. *Ell.* Hirsute; erect; dichotomously branching; leaves ternate; peduncles axillary.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September, and after.
Hab. Pasture fields; along Brandywine: frequent. About two feet high: flowers yellow.

Obs. I should judge this to be a stranger here. It may have strayed hither from Canada,—where Willdenow says it is a native.

P. CANADENSIS. *Ell.* procumbent; silky; leaves quinate, cuneate-obovate, incised-dentate.
Vulgo—Common Cinque-foil.
Fl. Last of April, and after. *Fr. mat.* Beginning of June, and after.
Hab. Old fields; and sterile pastures: very common. 6 to 12 inches long: flowers yellow.

P. SIMPLEX. *Ell.* Erect; hirsute; leaves quinate, upper ones sessile; leaflets oblong-oval, coarsely serrate.
Fl. Middle of May, and after. *Fr. mat.* Last of June, and after.
Hab. Woodlands; roadsides, &c. common. 9 to 15 inches high: flowers yellow.

Obs. This species, when it first flowers, is usually about a foot high; but it often extends, afterwards, to 2 or 3 feet, and becomes almost procumbent.

218. FRAGARIA. *Nutt. Gen.* 451.

[Lat. *fragrans*, smelling sweetly; in reference to its fragrant fruit.]

CAL. inferior, 10 cleft. COR. petals 5. *Receptacle* of the seed ovate, *berried*, deciduous.

F. VIRGINIANA. *Ell.* Calyx of the fruit spreading; hairs on the petioles erect, on the peduncles appressed.
Vulgo—Wild Strawberry.
Fl. Latter end of April. *Fr. mat.* Last of May.
Hab. Neglected old fields; fence-rows, &c. frequent. 6 to 12 inches long: flowers white; fruit red.

Obs. Improved agriculture, and the rotation of crops, have caused this delicious fruit to be more rare in our fields than it was formerly.

CLASS XIII. DIDYNAMIA.

ORDER, GYMNOSPERMIA.

a. *Calyx nearly equally* 5 *cleft.*

219. TEUCRIUM. *Nutt. Gen.* 495.

[Said to be dedicated to *Teucer*; a Trojan Prince, who first introduced the plant to notice.]

Cor. upper lip none; or deeply cleft, with the *Stamens* in the fissure: lower lip trifid.

T. CANADENSE. *Ell.* Leaves lance-ovate, serrate; spike terminal, crowded; bractes as long as the calyx.
Vulgo—Nettle-leaved Germander. Wood Sage.
Fl. Middle of July. *Fr. mat.* Beginning of September.
Hab. Fence rows; and along Brandywine: frequent. 1 to 3 feet high: flowers pale purple.

Obs. I have specimens which fit the descriptions given of both T. *canadense*, and T. *virginicum*; except that the bractes are, in all of them, about *as long* as the calyx: but I incline to think they are nothing more than *varieties*. That which answers to T. virginicum, grows on the rich, moist grounds along Brandywine, near John Taylor's Mill; and is often 3 feet high, or more.

220. VERBENA. *Nutt. Gen.* 521.

[From the Celtic, *ferfaen*, meaning to remove, or cure the stone; one of its supposed virtues. *De Theis.*]

Cor. funnel-form; tube incurved; limb 5 lobed, unequal. *Seeds* 4 or 2, finally naked.

V. HASTATA. *Ell.* Leaves lanceolate, acuminate, incised-serrate, rarely hastate; spikes paniculate.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Swampy meadows; and creek sides: Brandywine: frequent. 3 to 5 feet high: flowers bluish purple.

Obs. I suspect our plant is the variety, *oblongifolia*, of Nuttall. I have preferred placing this genus in *Gymnospermia*, because the evanescent capsule, or tunic of the seeds, which is spoken of, is rarely to be observed: and therefore the student will be most likely to look for it in this order.

V. URTICÆFOLIA. *Ell.* Leaves ovate, acute, serrate; spikes filiform, terminal and axillary; flowers distinct.
Vulgo—Common, or Nettle-leaved Vervain.
Fl. Beginning of July, and after. *Fr. mat.* Last of September.
Hab. Pastures and roadsides: not common. 2 to 4 feet high: flowers white, small.

Obs. This species is pretty abundant in our pasture fields; and, towards autumn, becomes covered with a bluish pulverulent matter, resembling *mould*. Schœpf says, the decoction of the *root*, together with the inner bark of white oak, in milk and water, has been used with happy success in cases of poisonous eruption caused by the poison Sumach. The virtues of the remedy, probably, were derived from the oak bark.

221. MENTHA. *Nutt. Gen.* 496.

[*Minthe*, a daughter of Cocytus; fabled to have been changed into this herb, by Proserpine.]

Cor. 4 cleft, subequal; the broadest segment emarginate. *Stamens* erect, distant.

M. BOREALIS. *Ph.* Pubescent; leaves petiolate, lance-oval, acute at each end; flowers verticillate.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Along Brandywine: Jefferis' ford, &c. frequent. 9 to 18 inches high: flowers purplish white.

M. ARVENSIS. *Fl. Brit.* Hairy; branching; leaves ovate; flowers verticillate; calyx campanulate.
Vulgo—Corn Mint. Field Mint.
Fl. Middle of July, and after. *Fr. mat.*
Hab. Roadside, near Jos. Townsend's farm house: rare. About 1 foot high: flowers bluish purple.

Obs. This foreigner is rare here; and has probably escaped from the gardens, or been accidentally introduced. The plant, when bruised, has a remarkable odor; not unaptly compared, by Withering, to that of mouldy cheese.

M. VIRIDIS. *Fl. Brit.* Leaves lanceolate, sessile; spikes elongated, interrupted; stamens long.
Vulgo—Spear Mint. Common Mint.
Fl. Latter end of July, and after. *Fr. mat.* Last of September.
Hab. About houses: along rivulets, &c. frequent. 1 to 2 feet high: flowers pale purple.

Obs. A foreigner, but becoming extensively naturalized. It is well known for its warm, aromatic qualities; and is much employed in domestic medicine, in cases of nausea, &c.

M. PIPERITA. *Fl. Brit.* Leaves subovate, petiolate; spikes obtuse, interrupted below; stamens included.
Vulgo—Pepper Mint.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Along rivulets: low moist grounds: frequent. About two feet high: flowers purple.

Obs. This, also, is a foreigner; but is gradually becoming naturalized. It is too well known, for its grateful and valuable properties, to require a specification of them here. I may remark, however, that the infusion of this, and also of the preceding species, administered cold, in small portions,—say a table spoonful at a time,—is admirably adapted to relieve distressing nausea, and vomiting.

222. HYSSOPUS. *Nutt. Gen.* 498.

[A very ancient name, adopted for this genus: "a voce hebraica *Ezob.*" *Boerh.*]

COR. lower lip 3 parted; intermediate segment subcrenate. *Stamens* straight, distant.

H. NEPETOIDES. *Ph.* Stem acutely 4 angled, sub-alate; leaves ovate, acutely dentate; petioles smooth.
Fl. Middle of July, and after. *Fr. mat.* Last of September.
Hab. Fence-rows; borders of woods, &c. frequent. 4 to 6 feet high: flowers pale, or greenish yellow.

Obs. The styles are often *longer* than the corolla, in this species, as well as in the following.

H. SCROPHULARIFOLIUS. *Ph.* Stem obtusely 4 angled; leaves cordate-ovate, obtusely dentate; petioles
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October. [ciliate-pubescent.
Hab. Fence-rows; thickets, &c. frequent. 3 to 5 feet high: flowers, and stalks, purple.

223. NEPETA. *Nutt. Gen.* 499.

[Etymology obscure: supposed from *Nepete*, a city of Etruria; near which it was originally found.]

CAL. arid, striate. COR. lower lip crenate; margin of the throat reflected. *Stam.* approximate.

N. CATARIA. *Ell.* Hoary-pubescent; leaves cordate, petiolate, dentate-serrate; flowers in whorled spikes.
Vulgo—Cat-mint. Cat-nep.
Fl. Latter end of June, and after. *Fr. mat.* Last of August, and after.
Hab About houses, gardens, fence-rows, &c. common. 2 to 3 feet high: flowers reddish white.

Obs. A naturalized foreigner. The infusion of the herb is highly popular, as a remedy for irregularities of the catamenia; and is probably useful.

224. STACHYS. *Nutt. Gen.* 503.

[Gr. *Stachys*, a spike; in reference to its mode of flowering.]

COR. upper lip vaulted; lower lip reflected at the sides, middle segment large, emarginate.

S. ASPERA? *Mr.* Stem square, angles retrorsely hispid; leaves lance-oblong, obtusely serrate, subpetiolate.
Synon. S. hispida? *Ell.* *Vulgo*—Hedge-nettle. Clown-heal.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Brandywine: Jno. Taylor's; Wistar's Bridge: rare. 1 to 2 feet high: flowers pale reddish purple.

Obs. I take this to be the S. aspera, of Michaux; and yet it agrees remarkably, in several respects, with the S. *hispida*, of Pursh and Elliott. The calyx, however, is hispidly pilose, in my specimens. I am satisfied it is not the S. aspera, of Mr. Elliott.

225. LEONURUS. *Nutt. Gen.* 504.

[Gr. *Leon*, a lion, and *Oura*, a tail; from a strangely fancied resemblance.]

COR. upper lip villous, flat, entire; lower lip 3 parted, middle segment undivided.

L. CARDIACA. *Ell.* Leaves 3 lobed, dentate, cuneate at base; corolla longer than the pungent calyx.
Vulgo—Mother-wort.
Fl. Middle of June, and after. *Fr. mat.* Middle of August, and after.
Hab. About houses; farm-yards; fence-rows, &c. frequent. 2 to 4 feet high: flowers pale purple.

Obs. An unwelcome foreign weed, now completely naturalized.

L. MARRUBIASTRUM. *Willd.* Leaves lance-ovate, dentate; corolla as long as the subpungent calyx.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September.
Hab. Fence-rows, &c. about Marshallton: rare. 2 to 4 feet high: flowers pale red.

Obs. This foreign plant was introduced by the late Humphry Marshall, into his botanic garden,—whence it has spread around the neighborhood, and bids fair to become extensively naturalized: though it will not be any more welcome than the preceding.

226. MARRUBIUM. *Nutt. Gen.* 507.

["A voce hebraica *Marrob*, quod amarum succum significat" *Boerh.*]

CAL. salverform, 10 striate, rigid. COR. upper lip bifid, linear, straight.

M. VULGARE. *Ell.* Leaves roundish-ovate, crenate-dentate, rugose-veined; calyx teeth setaceous, uncinate.
Vulgo—Hoar-hound.
Fl. Beginning of July, and after. *Fr. mat.* Middle of August, and after.
Hab. Dry, stony banks, about houses, &c. frequent. 9 to 18 inches high: flowers white.

Obs. This foreign plant, though naturalized in many localities, does not seem to extend itself very fast. It is a well known, and deservedly esteemed tonic; and when prepared in the form of a syrup, is an excellent pectoral medicine.

227. LAMIUM. *Nutt. Gen.* 500.

[Obscure: *Boerh.* says, "a *Lamia pisce*, quia hujus piscis horrendum vultum refert."]

COR. upper lip entire, vaulted; lower lip 2 lobed; margin of the throat toothed on each side.

L. AMPLEXICAULE. *Wg.* Lower leaves petiolate; floral leaves sessile, amplexicaul, obtuse.
Vulgo—Dead-nettle. Hen-bit. Archangel.
Fl. Middle of April, and after. *Fr. mat.* June, and after.
Hab. Gardens; grain fields, &c. common. 9 to 15 inches long: flowers purple.

Obs. This is a naturalized foreigner; and often continues green through our winters. I have observed the small flowers, mentioned in Withering, putting forth in the month of February.

228. GLECHOMA. *Nutt. Gen.* 506.

[An ancient name, perhaps from the Gr. *Glukus*, sweet, or pleasant; in reference to its odor. See *De Theis.*]

COR. upper lip bifid, lower trifid, middle segment emarginate: each pair of *Anthers* forming a cross.

G. HEDERACEA. *Wg.* Stem procumbent, radicating; leaves cordate-reniform, crenate.
Vulgo—Ground Ivy. Ale-hoof. Gill.
Fl. Latter end of April, and after. *Fr. mat.*
Hab. Fence-rows; orchards, and shaded places: frequent. 6 to 18 inches long: flowers mostly blue.

Obs. Mr. Nuttall supposes it to be indigenous, along the Ohio, Potomac, &c. but it is evidently only naturalized in this vicinity. Withering says it was generally used to clarify, and give a flavor to Ale, till the reign of Henry the Eighth; about which period Hops were substituted. The plant is reputed to possess tonic, and other medical properties. See *Withering, Schœpf,* &c.

229. PYCNANTHEMUM. *Nutt. Gen.* 509.

[Gr. *Pyknos*, dense, and *Anthemon*, a flower; the flowers being collected in dense heads.]

Heads with many-leaved, bract-like involucres. COR. upper lip subentire, lower trifid. *Stam.* distant.

§ 1. *Stamens exserted.*

P. LINIFOLIUM. *Nutt.* Glabrous; branches fastigiate; leaves linear, acute; bractes subulate-aristate.
Synon. Thymus virginicus. *Willd.* Brachystemum virginicum. *Mx.* *Vulgo*—Virginian Thyme.
Fl. Latter end of July. *Fr. mat.* Middle of September.
Hab. Sterile banks; exsicated swamps: Barrens, &c. frequent. 1 to 2 feet high: flowers white.

Obs. A pleasant, aromatic herb; and reputed medicinal, in fevers, &c. by some of our dealers in *simples.*

P. LANCEOLATUM. *Ph.* Stem hairy-pubescent; branches erect; leaves lance-linear; calyx-teeth villous.
Synon. P. virginicum. *Nutt. Ell.* Brachystemon lanceolatus. *Muhl.*
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Moist, low grounds: Patton's: not common. 12 to 18 inches high: flowers white.

Obs. This bears considerable resemblance to the foregoing, and was confounded with it by Michaux, &c. but it is readily distinguished on comparing them. It is much less common here, than the other species.

§ 2. *Stamens included.*

P. MUTICUM. *Ell.* Leaves lance-ovate, sparingly toothed; bractes lanceolate, acute; calyx teeth ciliate.
Synon. Brachystemum muticum. *Mx.* *Vulgo*—Mountain Mint.
Fl. Latter end of July. *Fr. mat.*
Hab. Dry banks; borders of woods: Wm. Brinton's: rare. About 2 feet high: flowers pale reddish white.

Obs. This plant is pretty well figured in Michaux's Flora Boreali-Americana (*tab.* 32.). It has a fine aromatic odor, and warm taste.

b. *Calyx bilabiate.*

230. CLINOPODIUM. *Nutt. Gen.* 510.

[Gr. *Kline*, a bed, and *Pous, podos*, a foot; the verticils resembling the feet, or wheels, of a truckle bed.]

Verticils with bract-like, setaceous involucres. COR. upper lip flat, obcordate, straight.

C. VULGARE. *Ph.* Heads verticillate; bractes setaceous, divaricately hispid; leaves remotely dentate.
Vulgo—Wild Basil. Field Thyme.
Fl. Middle of July, and after. *Fr. mat.* Last of August, and after.
Hab. Dry, sandy banks; borders of woods; roadsides, &c. frequent. 12 to 18 inches high: flowers purple.

☞ ORIGANUM VULGARE grows on the roadside towards Philadelphia, between the 6 and 7 mile stones; but I have not seen it nearer to this place.

231. PRUNELLA. *Nutt. Gen.* 515.

[Altered from *Brunella*, and derived from the German, *die Breune;* a disease, said to be cured by it.]

CAL. upper lip flat, dilated. *Filaments* bifurcate; one point antheriferous. *Stigma* bifid.

P. VULGARIS. *Ell.* Leaves petiolate, oblong-ovate; lips of the calyx unequal, upper one truncate, 3 awned.
Synon. P. Pennsylvanica? *Muhl.* *Vulgo*—Heal-all, or All-heal. Self-heal.
Fl. Middle of July till November. *Fr. mat.* August, and after.
Hab. Woodlands; roadsides, &c. very common. 6 to 12 inches high: flowers violet purple, rarely white.

Obs. Mr. Nuttall says this is "certainly an introduced plant." It appears to be subject to some *varieties;* but it may be doubted whether we have more than one species. The plant is mucilaginous, and was formerly a popular ingredient in ointments, &c. as the common name indicates: but it is wholly neglected at present. Even Schœpf says, "*exoleta, superflua.*"

232. SCUTELLARIA. *Nutt. Gen.* 516.

[Lat. *Scutella*, a small dish; or *Scutellum*, a little shield; from the shape of the appendage of the calyx.]

CAL. margin entire, after flowering closed with a galeate lid. COR. tube elongated.

S. LATERIFLORA. *Ell.* Branching; glabrous; leaves ovate, dentate, petioles long; racemes lateral, leafy.
Vulgo—Mad-dog Scull-cap. Side-flowering Scull-cap. Hood-wort.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of September, and after.
Hab. Moist, low grounds: along ditches, &c. frequent. 1 to 2 feet high: flowers purplish blue, small.

Obs. This is the plant which has recently made so much noise, among Newspaper Gossips, as a remedy for *Hydrophobia.* The absurd tales, however, which were propagated with so much zeal and industry among the credulous, have at length become rather stale, even for the medical department of a Gazette; and the lately vaunted specific is now very properly permitted to repose in peace with its kindred medicaments, *Anagallis* and *Alisma.* For a sensible and judicious exposition of this matter, by Dr. W. P. C. Barton, see the first volume of Chapman's Medical and Physical Journal.

S. INTEGRIFOLIA. *Ell.* Pubescent; leaves subsessile, oblong, entire, tapering at base; racemes loose.
Vulgo—Large-flowered Scull-cap.
Fl. Latter end of June, and after. *Fr. mat.* Last of July, and after.
Hab. Woodlands; and meadows: frequent. 1 to 2 feet high: flowers pale blue, large.

Obs. The S. *hyssopifolia*, with linear leaves, which Pursh considers as only a *variety* of this, is frequent on the barren ridge. They certainly are nearly allied; and are both intensely bitter—much more likely to possess medical virtues than the preceding species.

S. PILOSA. *Ell.* Hairy; leaves distant, oval, crenate, petiolate; racemes terminal, loose; calyx hispid.
Synon. S. ovalifolia. *Muhl. Bart. Fl. Phil.* probably not of *Persoon.* *Vulgo*—Common Scull-cap.
Fl. Middle of June, and after. *Fr. mat.* Beginning of August, and after.
Hab. Woodlands; and thickets: common. 12 to 20 inches high: flowers bluish purple.

Obs. There seems to be some little confusion respecting this common species: and the plant itself appears to be subject to some varieties—being much less hairy in some instances than others, and the leaves considerably broader, &c. It is, however, pretty well described by Mr. Elliott.

233. THYMUS. *Nutt. Gen.* 517.

[Perhaps from the Gr. *Thymos*, courage; in allusion to its cordial qualities.]

CAL. subcampanulate, orifice closed with villous hairs. COR. upper lip flat, emarginate.

T. SERPYLLUM. *Wg.* Stem creeping; leaves oblong-ovate, entire, ciliate at base; flowers in heads.
Vulgo—Thyme. Mother of Thyme.
Fl. Last of June till October. *Fr. mat.* Last of August, and after.
Hab. Sandy banks: Roadside S. of Birmingham M. H. rare. 4 to 6 inches long: flowers purple.

Obs. This delightful little aromatic herb occurs occasionally: but it is believed to be only naturalized. Its

uses in domestic economy, &c. are well known, It was one of the vulgar notions of the age gone by, that this plant sprang up spontaneously, in spots where human blood had been spilled by any casualty, or violence.

234. TRICHOSTEMA. *Nutt. Gen.* 519.

[Gr. *Thrix, trichos*, a hair, and *Stema*, a stamen; alluding to its long, hair-like stamens.]

CAL. resupinate. COR. upper lip falcate. *Stamens* very long, incurved.

T. DICHOTOMA. *Ell.* Leaves rhomboid-lanceolate, pubescent; flowers in dichotomous panicles.
Vulgo—Bastard Pennyroyal. Blue Curls.
Fl. Middle of August, and after. *Fr. mat.* Last of September.
Hab. Sandy grounds; old fields, &c. frequent. 8 to 15 inches high: flowers bright blue.

Obs. This plant, when slightly bruised, emits an odor remarkably similar to that of the ripe kernels of the Juglans nigra, or black walnut.

ORDER, ANGIOSPERMIA.

a. *Calyx mostly 5-cleft.*

235. PHRYMA. *Nutt. Gen.* 520.

[A Linnæan name; whose origin, or derivation, has not even been conjectured.]

CAL. cylindric; upper lip longer, trifid; lower bidentate. COR. upper lip emarginate; lower large. *Seed* 1.

P. LEPTOSTACHYA. *Ell.* Leaves ovate, coarsely serrate; spikes slender; flowers opposite; fruit reflexed.
Fl. Beginning of July. *Fr. mat.* Middle of September.
Hab. Borders of woodlands; fence-rows, &c. frequent. 1 to 2 feet high: flowers pale purple, small.

Obs. The thin membranaceous *Capsule*, is liable to be overlooked by the student; and, indeed, the plant has been placed in *Gymnospermia* by very able botanists, who have only seen dried specimens: but the seed-vessel is quite obvious in the fresh plant—especially before the fruit is fully mature.

236. SCROPHULARIA. *Nutt. Gen.* 528.

[Said to have been so named, from its supposed virtues in curing *Scrophula*.]

COR. sub-globose, resupinate, middle segment of the lower lip reflexed. CAPS. 2 celled.

S. MARILANDICA. *Ell.* Stem square: leaves ovate, doubly serrate; panicle terminal, compound, loose
Vulgo—Carpenter's Square. Maryland Fig-wort.
Fl. Last of May till September. *Fr. mat.* August, and after.
Hab. Fence-rows; woodlands, &c. frequent. 3 to 6 feet high: flowers dingy greenish purple.

Obs. This plant may be readily recognized by "a small spathulate purple appendage attached to the tube of the corolla, just below the base of the upper segment." The *root*, bruised, is a popular application to phlegmons, &c. with a view to promote suppuration. What the real virtues of the plant are, I am unable to say.

237. BUCHNERA. *Nutt. Gen.* 531.

[In honor of *John Gottfried Buchner*; a German Botanist.]

COR. tube slender, long, border 5 lobed, lobes nearly equal, obcordate. *Stam.* short. CAPS. 5 celled.

B. AMERICANA. *Ell.* Scabrous; hairy; leaves lanceolate, opposite, sessile; spike remote-flowered.
Fl. Latter end of August. *Fr. mat.*
Hab. Wet meadow, at Hayes' bridge, Street road: rare. 1 to 2 feet high: flowers purple.

Obs. I have only met with this in the above mentioned locality. The flowers, at first view, considerably resemble those of *Phlox*.

238. ANTIRRHINUM. *Nutt. Gen.* 532.

[Gr. *Anti*, equal, or like, and *Rhin*, a nose; the flowers resembling the snout of some animals.]

COR. spurred, or gibbous at base; ringent, throat closed by the prominent palate. CAPS. ovate, 2 valved.

A. LINARIA. *Ph.* Glabrous: leaves scattered, lance-linear; spike terminal, dense-flowered; spur long.
Vulgo—Toad-flax. Ransted weed. Devil's flax. Wild Snap-dragon.
Fl. Last of May till October. *Fr. mat.* August, and after.
Hab. Fence-rows; fields, &c. common. 1 to 2 feet high: flowers yellow.

Obs. This is a foreigner, but very extensively naturalized; and a most unwelcome intruder upon our farms;—being utterly worthless, and monopolizing much ground.

239. GERARDIA. *Nutt. Gen.* 534

[In honor of *John Gerard;* an English Herbalist of some celebrity in his day.]

Cor. subcampanulate, unequally 5 lobed, lobes mostly rounded. Caps. 2 celled, opening at top.

G. PURPUREA. *Ell.* Stem branched, scabrous; leaves linear, scabrous; peduncles short; flowers large.
Fl. Latter end of August. *Fr. mat.* Middle of October.
Hab. Moist woodlands: Patton's, &c. frequent. 12 to 18 inches high: flowers purple.

G. TENUIFOLIA. *Ell.* Stem branched, smoothish, 4 angled; leaves linear, smoothish; peduncles long, slender.
Fl. Latter end of August. *Fr. mat.* Middle of October.
Hab. Dry, sterile soils: Barrens, &c. frequent. 6 to 12 inches high: flowers purple.

Obs. This resembles the foregoing species, but is more delicate; and may be readily distinguished by its long peduncles.

G. AURICULATA. *Mx.* Rough; leaves lance-ovate, entire, auriculate, sessile; flowers axillary, sessile.
Synon. Erinus africanus? *Muhl.*
Fl. Latter end of August. *Fr. mat.*
Hab. Patton's low grounds: very rare. 6 to 9 inches high: flowers purple.

Obs. A handsome specimen of this plant was brought to me, in 1816, by Joel C. Baily, Esqr. who found it in the above locality: but I have sought in vain for it ever since. The solitary occurrence of the species, in this place, is somewhat remarkable: though Mr. Schweinitz informs me, that the same plant suddenly made its appearance in great abundance, in 1823, near Nazareth, Penn. where it had never been seen before.

G. FLAVA. *Ph.* Pubescent; leaves subsessile, lanceolate; flowers axillary, opposite, subsessile.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Hilly woodlands: common. 2 to 3 feet high: flowers yellow, large.

G. QUERCIFOLIA. *Ph.* Glabrous; branching; leaves petiolate, pinnatifid; flowers on short peduncles.
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Rich woodlands: below Wm. Bennett's; Brandywine: not common. 3 to 5 feet high: flowers yellow.

G. PEDICULARIA. *Ell.* Villous; branching; leaves oblong, pinnatifid, lobes serrate: calyx segments leaflike
Fl. Middle of August, and after. *Fr. mat.* Middle of October.
Hab. Dry, slaty woodlands: Barrens, &c. frequent. 2 to 4 feet high: flowers yellow.

240. PEDICULARIS. *Nutt. Gen.* 536.

[Lat. *Pediculus*, a Louse; but the reason of the name is undetermined.]

Cor. ringent, upper lip emarginate, compressed. Caps. 2 celled, oblique, mucronate. *Seeds* coated.

P. PALLIDA. *Ph.* Branching; leaves opposite, lanceolate, crenate-dentate; spike leafy, glabrous; galea obtuse.
Synon. P. sceptrum? (serotina). *Muhl.* *Vulgo*—Late-flowering Louse-wort.
Fl. Beginning of September. *Fr. mat.* Middle of October.
Hab. Low grounds, and thickets: Patton's: frequent. 1 to 2 feet high: flowers greenish yellow.

P. GLADIATA. *Ph.* Simple; leaves lanceolate, pinnatifid; flowers alternate; capsules ensiform-mucronate.
Fl. Beginning of May. *Fr. mat* Middle of June.
Hab. Grassy banks, in swamps, &c. Amos Darlington's: rare. 9 to 15 inches high. flowers brownish yellow.

P. CANADENSIS. *Ell.* Leaves pinnatifid; heads leafy at base, hirsute; galea with two bristly teeth.
Vulgo—Wood Betony. Louse-wort.
Fl. Beginning of May, and after. *Fr. mat.* Latter end of June.
Hab. Woodlands, thickets, and sandy banks: frequent. 6 to 12 inches high: flowers yellow.

Obs. The stems of this species are often somewhat procumbent: and when it grows on sterile banks, exposed to the sun, the flowers are apt to be of a reddish brown color. The green herb is one of the many which enter into the composition of poultices, for phlegmons, &c. in popular practice.

241. MIMULUS. *Nutt. Gen.* 537.

[Lat. *Mimus*, a masked actor; from a supposed resemblance of the flower to a mask.]

Cal. prismatic. Cor. ringent; sides of the upper lip reflected, palate of the lower prominent.

M. RINGENS. *Ell.* Leaves sessile; peduncles longer than the flowers; calyx teeth oblong, acuminate.
Vulgo—Monkey-flower.
Fl. Beginning of August, and after. *Fr. mat.* Last of September.
Hab. Meadows; and low, moist grounds: common. 12 to 18 inches high: flowers bluish purple.

M. ALATUS. *Ell.* Stem alate; leaves petiolate, lance-ovate; peduncles short; calyx teeth round, mucronate.
Fl. Last of July, and after. *Fr. mat.* Latter end of September.
Hab. Low grounds; borders of rivulets: frequent. 1 to 3 feet high: flowers bluish purple.

242. CHELONE. *Nutt. Gen.* 538.

[Gr. *Chelone*, a tortoise; the flower resembling the head of that animal.]

CAL. tribracteate. COR. ringent, ventricose. *Sterile filament* short. *Anthers* woolly. *Seeds* marginate.

C. GLABRA. *Ell.* Leaves opposite, lance-oblong, acuminate, serrate; spike terminal, dense-flowered.
Vulgo—Snake-head. Shell-flower.
Fl. Latter end of August, and after. *Fr. mat.* Middle of October.
Hab. Borders of Swamps, and rivulets: frequent. 2 to 3 feet high: flowers white.

☞ PENTSTEMON PUBESCENS grows in the northern part of this county, near the Schuylkill; but I have not found it in this immediate vicinity.

243. EPIPHEGUS. *Nutt. Gen.* 549.

[Gr. *Epi*, upon, and *Phegos*, a beech; alluding to its parasitic connection with that tree.]

POLYGAMOUS: *Sterile* flowers above: COR. ringent, compressed, 4 cleft, lower lip flat.
Fertile flowers below: COR. minute, 4 toothed, caducous. CAPS. roundish, oblique, gibbous, 1 celled.

E. AMERICANUS. *Nutt.* Branching; naked; flowers alternate, distant, bracteate; root tuberous, squamose.
Synon. Orobanche virginiana. *Auctorum.* *Vulgo*—Beech-drops. Cancer root. Squaw-root.
Fl. Beginning of September. *Fr. mat.* Middle of October.
Hab. Woodlands, exclusively under *Beech trees*: frequent. 6 to 15 inches high: flowers yellowish purple.

Obs. This singular plant,—which, in the words of Michaux, is always to be found "*in radice* FAGI, *nec aliæ plantæ*,"—possesses considerable astringency; and has been reputed a remedy in cancerous affections, dysentery, &c. See *Barton's collections*.

244. OROBANCHE. *Nutt. Gen.* 548.

[Gr. *Orobos*, a vetch, and *anchein*, to strangle; being supposed injurious to leguminous plants.]

COR. subringent, tube recurved. *Germ* with a *gland* at the base. CAPS. ovate, acute, 1 celled, 2 valved.

O. BIFLORA. *Nutt.* Stems very short, squamose, often clustered; peduncles 2, or 3, scapeform, 1 flowered.
Synon. O. uniflora. *Willd. Ph. Ell.* &c. *Vulgo*—Broom-rape.
Fl. Latter end of May. *Fr. mat.* Beginning of July.
Hab. Hilly woodlands: along Brandywine: frequent. 3 to 6 inches high: flowers purplish white.

Obs. The whole of this delicate little plant is of a yellowish dirty white, or pale tan color; and in its habit, or manner of growth, somewhat resembles the *Monotropa*,—except that the scape-like peduncles are slender and naked.

b. *Calyx* 4-*cleft: rarely bifid.*

245. MELAMPYRUM. *Nutt. Gen.* 547.

[Gr. *Melas*, black, and *Pyros*, wheat: its dark seeds somewhat resembling grains of wheat.]

COR. upper lip compressed, margin folded back; lower grooved, trifid. CAPS 2 celled, oblique. *Seeds* oblong.

M. LINEARE. *Ell.* Lower leaves linear, entire; upper ones lanceolate, toothed at base; flowers axillary.
Synon. M. americanum. *Mx.* *Vulgo*—Cow-wheat.
Fl. Latter end of June. *Fr. mat.* Middle of August, and after.
Hab. Barrens: abundant. 6 to 18 inches high: flowers greenish yellow, tinged with purple.

Obs. This plant seems to be entirely restricted, in its habitat, to our slaty barrens,—where it is very abundant.

246. EUCHROMA. *Nutt. Gen.* 542.

[Gr. *Eu*, well, or handsomely, and *Chroma*, color; in allusion to its showy, scarlet bractes.]

CAL. spatheform, bifid, or 4 cleft. COR. upper lip long, linear; lower short, trifid. *Anthers* linear, cohering.

E. COCCINEA. *Ell.* Stem leaves linear, incised-pinnatifid, segments linear; bractes trifid; calyx bifid.
Synon. Bartsia coccinea. *Auctorum.* *Vulgo*—Painted Cup. Red Robin.
Fl. Last of April, and after. *Fr. mat.* Last of June, and after.
Hab. Old meadows; borders of swamps: frequent. 9 to 18 inches high: flowers yellowish green; bractes red.

CLASS XIV. TETRADYNAMIA.

ORDER, SILICULOSA.

a. *Silicles mostly entire.*

247. DRABA. *Nutt. Gen* 551.

[An ancient Greek name; of uncertain meaning.]

Silicle oval-oblong; valves flattish, parallel with the dissepiment. *Style* scarcely any.

D. VERNA. *Ph.* Leaves oblong, acute, subserrate, rough-haired; scape naked; petals bifid; stigma sessile.
Synon. D. hispidula? *Mx.* *Vulgo*—Whitlow-grass. April flower. Shad blossom.
Fl. Beginning of April. *Fr. mat.* Beginning of June.
Hab. Sandy banks: roadsides, &c. common. 1 to 4 inches high: flowers white.

Obs. This delicate little plant, in mild seasons, often blooms in February and March.

248. ALYSSUM. *Nutt. Gen.* 552.

[Gr. *a*, privative, and *Lyssa*, madness; being supposed to cure that malady.]

Silicle subentire, marginate, mucronate with the style; valves concave. *Filam.* 2 shortest sometimes toothed.

A. SATIVUM. *Wg.* Leaves lanceolate, sagittate, amplexicaul; silicles obovate, inflated.
Synon. Myagrum sativum. *Willd.* &c. Camelina sativa. *Persoon.* *Vulgo*—Wild Flax. Mad-wort.
Fl. Latter end of May. *Fr. mat.* Beginning of July.
Hab. Cultivated grounds: chiefly among Flax, sometimes Wheat: frequent. 2 to 3 feet high: flowers yellow.

Obs. This foreigner is an unwelcome intruder in our Flax crops; where it is sometimes pretty abundant. Some few of our farmers are so deplorably ignorant of the botanical branch of their profession, as to believe that this plant is a sort of *degenerate Flax;* and that the metamorphosis is the result of sowing flax-seed in a burnt soil—as where brush-heaps, &c. have been burnt! This is worse, if possible, than the transformation of wheat into cheat. But, happily for the dignity of the agricultural character, the extension of natural science among our young farmers is rapidly exploding all such disreputable absurdities.
It is stated by Lightfoot, and Withering, that this plant is cultivated, in Germany, for the sake of the oil which its seeds afford.

b. *Silicles emarginate.*

249. LEPIDIUM. *Nutt. Gen.* 554.

[Supposed from the Gr. *Lepis, lepidos,* a scale, or shell; from the form of the seed-vessels.]

Silicle orbicular, 2 celled; cells 1 seeded; valves keeled; dissepiment contrary.

L. VIRGINICUM. *Ell.* Sub-diandrous; radical leaves pinnatifid; cauline lance-linear, sub-incised-serrate.
Vulgo—Wild Pepper-grass.
Fl. Middle of May, and after. *Fr. mat.* Last of July, and after.
Hab. Lanes, fields, and roadsides: common. 9 to 15 inches high: flowers white, minute.

250. THLASPI. *Nutt. Gen.* 555.

[An ancient Greek name: "a *thlao,* comprimo, quiâ ejus siliqua est valde compressa." *Boerh.*]

Silicle obcordate, 2 celled; seeds numerous; valves boat-form, with the keels outward.

T. BURSA PASTORIS. *Ell.* Hairy; radical leaves pinnatifid, cauline lanceolate; pods deltoid-obcordate.
Vulgo—Shepherd's Purse.
Fl. Middle of April, and after. *Fr. mat.* Last of June, and after.
Hab. Gardens, fields, and roadsides: very common. 6 to 20 inches high: flowers white, small.

Obs. This foreign weed has become so extensively naturalized as to be rather troublesome in our gardens and grain fields. It is subject to many *varieties,* particularly in its radical leaves: some being nearly entire, and others pseudo-pinnate.

ORDER, SILIQUOSA.

a. *Calyx closed; leaflets longitudinally conniving.*

251. ERYSIMUM. *Nutt. Gen.* 561.

[Gr. "ab *eryo*, extraho, quia ob suam calliditatem habet vim eruendi extra corpus quid latet." *Boerh.*]

Silique straight, linear, exactly 4 sided. *Stigma* capitate.

E. OFFICINALE. *Ell.* Lower leaves runcinate, upper ones sub-hastate; pods appressed to the stem.
Vulgo—Hedge Mustard.
Fl. Last of May till autumn. *Fr. mat.* Last of July, and after.
Hab. About houses; gardens, roadsides, &c. frequent. 1 to 3 feet high: flowers greenish yellow, small.

Obs. A naturalized foreigner. Like the generality of Tetradynamous plants, it is warm and acrid to the taste; and, according to a note in Withering, the *juice* has been found "beyond any thing in ulcers of the throat,—when all advice of Doctors and Surgeons availed nothing." I am unacquainted with its virtues.

252. BARBAREA. *Nutt. Gen.* 559.

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Silique 4 sided-ancipital; *seeds* in a single series. *Cal.* erect. *Glands* between the short stamens and germ.

B. VULGARIS. *Nutt.* Radical leaves lyrate-pinnatifid, terminal lobe large, rounded; cauline obovate, dentate.
Synon. Erysimum barbarea. *Willd. Muhl.* &c. *Vulgo*—Scurvy grass. Winter Cress. Yellow Rocket.
Fl. Middle of May. *Fr. mat.* Beginning of August.
Hab. Low, muddy shores of the Brandywine; frequent. 1 to 2 feet high: flowers yellow.

Obs. It seems to be doubted whether this is a native. It is, however, pretty common in the low grounds along our creeks. The radical leaves are frequently collected, early in the spring, and eaten as a sallad, under the name of "Scurvy grass."

253. ARABIS. *Nutt. Gen.* 564.

[An ancient greek name of a plant; supposed to be a native of *Arabia*.]

Silique linear, compressed, crowned with the *stigma*. *Glands* 4, squamiform, 1 within each calyx-leaflet.

A. LYRATA. *Nutt.* Radical leaves lyrate, pilose; cauline linear, glabrous; pedicels spreading, pods erect.
Fl. Latter end of April, and after. *Fr. mat.* Last of May, and after.
Hab. Sterile, stony hills; Barren ridge: frequent. 6 to 15 inches high: flowers white, conspicuous.

A. FALCATA. *Mr.* Leaves lanceolate, narrow at each end, obsoletely dentate; pods pendulous, falcate.
Synon. A. canadensis. *Willd. Ell. Nutt.* *Vulgo*—Sickle-pod. Turkey-pod. Wall-cress.
Fl. Beginning of June. *Fr. mat.* Last of August.
Hab. Hilly woodlands; along Brandywine: frequent. About 2 feet high: flowers white, smallish.

Obs. The seeds of this species are encircled by a membranaceous border, the margins overlapping.

A. RHOMBOIDEA. *Ell.* Root tuberous; leaves glabrous, sub-rhomboid, repand-dentate, lower ones roundish.
Synon. A. bulbosa. *Muhl.* A. tuberosa? and rhomboidea. *Persoon.* *Vulgo*—Spring cress.
Fl. Middle of April, and after. *Fr. mat.* Beginning of June, and after.
Hab. Springs, and along muddy rivulets: common. 9 to 18 inches high: flowers white, large.

Obs. The fleshy root of this species is quite pungent to the taste; and Pursh thought it worthy to be introduced into gardens, to be used as cresses. Dr. Muhlenberg seemed to doubt whether this was not the Cardamine rotundifolia, of Michaux,—and his doubt has been adopted by Messrs. Nuttall, W. P. C. Barton, and Elliott: but I am satisfied that the plants are clearly distinct,—as I have found *both*, in this vicinity. *See Cardamine rotundifolia.*

254. DENTARIA. *Nutt. Gen.* 557.

[Lat. *Dens, dentis*, a tooth; from the tooth-like processes of the root.]

Silique opening elastically; valves nerveless, revolute. *Dissepiment* sub-fungose. *Stigma* emarginate.

D. LACINIATA. *Ell.* Leaves in 3's, ternate; leaflets linear-oblong, incised-dentate; root moniliform.
Synon. D. concatenata. *Mx.* *Vulgo*—Tooth-wort.
Fl. Middle of April. *Fr. mat.* Beginning of June.
Hab. Rich woodlands: frequent. 9 to 15 inches high: flowers purplish white.

b. *Calyx gaping; leaflets distant above.*

255. CARDAMINE. *Nutt. Gen.* 558.

[Gr. "a *Kar,* (vel *Kear,*) cor, et *damao,* domo, quasi planta cordis deficientes vires restaurans." *Boerh.*]

Silique opening elastically; valves mostly revolute, same length as the *dissepiment. Stigma* entire.

C. ROTUNDIFOLIA. *Mx.* Branching; slender; glabrous; leaves simple, suborbicular, petiolate; pods spreading.
Fl. Middle of May. *Fr. mat.* Middle of June.
Hab. Shaded, swampy spring, at the Brandywine: rare. 9 to 15 inches high: flowers white, smallish.

Obs. I have met with this plant in one spot only,—in a shaded, muddy spring, at the foot of the hill, on the west side of Brandywine, nearly opposite John Taylor's Mill—where it is pretty abundant. It would appear that Dr. Muhlenberg had never seen it; as he seemed to think Michaux's description was intended for the Arabis rhomboidea. But they are undoubtedly distinct plants. The roots of the Cardamine are constantly fibrous; the stems mostly branching, somewhat procumbent, branches slender and weak; the leaves are all petiolate, and nearly orbicular; the lower ones often two inches in diameter, and on pretty long petioles. the upper ones gradually diminish in size, as they ascend, the top ones not being more than one third, or one half of an inch in diameter, and the petioles becoming shorter in the same manner. The peduncles are spreading, almost divaricate; the petals are not more than half the size of those of A. rhomboidea; the stigma is simple, and very small, on a tapering style nearly a line in length. The plant is not so acrid as the Arabis; but is rather bitter to the taste. In fine, I am well satisfied that this is Michaux's C. rotundifolia; in which opinion I am fortified by Dr. Torrey, to whom I sent specimens.

C. PENNSYLVANICA. *Ell.* Glabrous; leaves pseudo-pinnate, segments roundish-oblong, obtuse; pods erect.
Synon. C. virginica? *Mx.* *Vulgo*—American Water-cress. Lady's smock.
Fl. Beginning of May. *Fr. mat.* Beginning of June.
Hab. Spring heads, rivulets, swamps, &c. frequent. 12 to 18 inches high: flowers white.

Obs. The silique is terminated by a short tapering style, or beak, as in the foregoing; and, when mature, the valves burst open with great elasticity, and roll up spirally. The leaves of the young plants are often gathered, in the spring, and eaten, under the common name of "water cresses."

CLASS XV. MONADELPHIA.

ORDER, TRIANDRIA.

256. SISYRINCHIUM. *Nutt. Gen.* 36.

[Gr. *Sys,* a hog, and *Rhynchos,* a snout; hogs being supposed to be fond of rooting it up.]

CAL. *spathe,* 2 leaved. COR. superior, 6 cleft, tube short. CAPS. 3 celled, pedicellate beyond the spathe.

S. MUCRONATUM. *Ell.* Stem simple, setaceous; leaves narrow; spathe colored; outer valve long-mucronate.
Vulgo—Sword-pointed Blue-eyed Grass.
Fl. Middle of May, and after. *Fr. mat.* Last of June, and after.
Hab. Low grounds, and meadows: frequent. 9 to 12 inches high: flowers blue.

S. BERMUDIANUM. *Ell.* Stem ancipital, alate, leafy; leaves grass-like; spathe shorter than the flowers.
Synon. S. anceps? *Ph. Bart. Fl. Phil.* &c. *Vulgo*—Blue-eyed grass.
Fl. Beginning of June, and after. *Fr. mat.* Middle of July.
Hab. Woodlands; thickets, &c. frequent. 12 to 18 inches high: flowers blue.

Obs. I can perceive no sufficient reason to remove this genus into the Class Triandria, so long as that of Monadelphia shall be deemed worthy of a place in the Sexual System.

ORDER, PENTANDRIA.

257. LOBELIA. *Nutt. Gen.* 562.

[In honor of *Matthias de Lobel;* a Flemish Botanist.]

CAL. 5 cleft. COR. 1 petalled, irregular, upper side deeply cleft. *Anthers* cohering. CAPS. 2 or 3 celled.

L. CLAYTONIANA. *Ph.* Simple; pubescent; leaves oblong, obtuse; raceme virgate; bractes subulate.
Fl. Beginning of June till September. *Fr. mat.* Beginning of August, and after.
Hab. Fields, meadows, and woodlands; frequent. 1 to 3 feet high, slender: flowers pale blue, small.

L. INFLATA. *Ell.* Branching; hirsute; leaves lance-ovate, serrate; racemes leafy; capsules inflated.
Vulgo—Eye-bright. Indian Tobacco. Puke-weed.
Fl. Middle of July till October. *Fr. mat.* September, and after.
Hab. Pastures; roadsides, &c. common. 12 to 18 inches high: flowers pale blue, small.

Obs. The lactescent juice of this species is highly acrid; and the plant is said to possess very active properties—being cathartic, emetic, and narcotic, according to the dose. The tincture of the leaves has been found serviceable in cases of asthma, &c. in the northern States; but I believe it has rarely been used in this part of the country.

L. SYPHILITICA. *Ell.* Simple; sub-hirsute; leaves lance-oval, serrulate; calyx hispid, sinuses reflexed.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Swamps, and low grounds: frequent. 1 to 4 feet high: flowers bright blue, large.

Obs. A handsome, showy species;—the flowers are sometimes tinged with purple, and occasionally, though rarely, are milk white. This plant was one of the *Indian* nostrums, which formerly attracted so much notice; and was reputed to be a remedy for *syphilis*—whence its specific name:—but, like most of the Indian remedies, it lost its character as soon as reason and observation were substituted for blind *faith*.

L. CARDINALIS. *Ell.* Simple; leaves lanceolate, denticulate; raceme sub-secund; stamens long.
Vulgo—Cardinal flower.
Fl. Last of July till October. *Fr. mat.* Middle of October.
Hab. Low grounds: along rivulets, &c. frequent. 1½ to 3 feet high: flowers bright crimson.

Obs. This truly superb plant would doubtless be cultivated in our flower gardens with great care, if it were less common. It is said to be endued with vermifuge properties; but I believe it is only on *Indian* authority.
The genus Lobelia does not exactly accord with the prevailing character of the Class Monadelphia; but it is, perhaps, arranged here with as much propriety as it could be in any other class.

ORDER, DECANDRIA.

258. GERANIUM. *Nutt. Gen.* 574.

[Gr. *Geranos*, a crane; the persistent style resembling the beak of that bird.]

CAL. 5 leaved. COR. petals 5, regular. *Stigmas* 5. *Arils* 5, 1 seeded, mucronate.

G. MACULATUM. *Ell.* Erect; leaves 5 parted, segments cuneate-obovate; petals twice as long as the calyx.
Vulgo—Crow-foot. Spotted Crane's-bill. Wild Geranium. Alum-root.
Fl. Beginning of May, and after. *Fr. mat.* Middle of June, and after.
Hab. Woodlands; field-sides, &c. common. 12 to 18 inches high: flowers reddish purple, large.

Obs. The root of this plant is a pretty valuable astringent; and has been much used in diarrhœas, hemorrhage, &c. See *Barton's Collections; Coxe's Medical Museum*, &c.

G. CAROLINIANUM. *Ell.* Diffuse; leaves 7 parted; peduncles subfascicled; petals the length of the calyx.
Fl. Latter end of May. *Fr. mat.* Last of June.
Hab. Brandywine; west side, above Painter's bridge: rare. 12 to 18 inches long: flowers white, small.

Obs. This species is very rare, and apparently a stranger, in this vicinity. The *variety* with red-veined flowers, grows in great abundance about Danville, Columbia county. I have not seen it here.

☞ G. DISSECTUM, *Ph.* (G. PUSILLUM, *Muhl* ?) is abundant along the Susquehanna, near M'Call's ferry; but has not been found hereabouts. ☜ Pursh is mistaken in saying that the G. ROBERTIANUM, of this country, does not possess the heavy scent which belongs to the European plant. I observed that peculiar odor in a very high degree, in specimens which I collected at West Point, N. Y. I have not met with the plant in this State.

259. OXALIS. *Nutt. Gen.* 420.

[Gr. *Oxys*, sharp, or sour; in reference to the acid quality of the plant.]

CAL. 5 leaved. COR. petals 5, claws connected. *Stam.* alternately shorter. CAPS. 5 celled, 5 angled.

O. VIOLACEA. *Ell.* Root bulbous; scape umbelliferous; flowers nodding; styles shorter than the stamens.
Vulgo—Violet Wood Sorrel.
Fl. Latter end of May. *Fr. mat.* Beginning of July.
Hab. Rich, shaded grounds: woodlands: frequent. 5 to 9 inches high: flowers purple.

O. CORNICULATA. *Ell.* Pubescent; stems sub-procumbent, radicating; umbels the length of the petioles.
Fl. Middle of May, and after. *Fr. mat.* Middle of June, and after.
Hab. Fields; and woodlands: common. 3 to 6 inches long: flowers yellow.

O. STRICTA. *Ell.* Hairy; stem erect, branching; umbels longer than the petioles.
Vulgo—Common Wood Sorrel.

Fl. Middle of June till September. *Fr. mat* August, and after.
Hab. Borders of woods; fields, &c. common. 6 to 18 inches high: flowers yellow.

Obs. I have some small, erect specimens, with hirsute stems, and umbels longer than the leaves,—which Mr. Schweinitz thought might be the O *Dillenii*, of Pursh (O. *furcata?* Elliott). Mr. Nuttall, however, seems to consider that species scarcely distinct from the O. stricta.

I have followed Michaux, in arranging this genus in Monadelphia; to which place it appears to have quite as much pretension, at least, as the genus Lobelia.

ORDER, POLYANDRIA.

260. SIDA. *Nutt. Gen.* 577.
[An ancient Greek name; of uncertain etymology.]

CAL. simple, angular, 5 cleft. COR. petals 5. *Style* many parted. CAPS. many; each 1 or 3 seeded.

S. SPINOSA. *Ell.* Leaves lance-ovate, or sub-cordate, dentate-serrate; axils subspinose; capsules 2 horned.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of September, and after.
Hab. Dry banks; roadsides, &c. frequent. 9 to 15 inches high: flowers yellow.

Obs. Spinosa is not a good name; as there are, in fact, no re al spines,—but mere minute points, or protuberances, just below the axils, which can scarcely be considered as even the rudiments of spines. Is the plant really spinose in its native regions? It is a stranger here; and was somewhat rare when this catalogue was commenced, in 1813—but it is now (1825) becoming quite common.

S. ABUTILON. *Ell.* Silky-tomentose; leaves round-cordate, acuminate; capsules 2 awned, truncate.
Vulgo—Indian Mallow. De Witt weed. Velvet-leaf.
Fl. Middle of July till October. *Fr. mat.* Middle of August, and after.
Hab. Gardens, lanes, fields, &c. common. 2 to 5 feet high: flowers yellow.

Obs. A naturalized foreigner; and becoming troublesome in our cultivated grounds.

261. MALVA. *Nutt. Gen.* 578.
[An ancient Latin name; of obscure derivation.]

CAL. double; outer one 3 leaved, inner 5 cleft. COR. petals 5. CAPS. many, 1 seeded, arranged orbicularly.

M. ROTUNDIFOLIA. *Ell.* Stem prostrate; leaves cordate-orbicular; peduncles of the fruit declinate.
Vulgo—Running Mallows. Low Mallows.
Fl. Middle of May till October. *Fr. mat.* August, and after.
Hab. Gardens, yards, and grass-lots: common. 12 to 20 inches long: flowers reddish white.

Obs. A naturalized foreigner; and rather troublesome in gardens, &c. It contains considerable mucilage; and is much used, in popular practice, as an ingredient in emollient cataplasms—also in infusion, as a demulcent drink.

M. MOSCHATA. *Wg.* Erect; radical leaves reniform, incised; cauline 5 parted, segments pinnatifid.
Vulgo—Musk Mallows.
Fl. Middle of June, and after. *Fr. mat.*
Hab. Brandywine, near John Taylor's mill: rare. About 2 feet high: flowers pale red, or nearly white.

Obs. This is a rare foreigner; and seems to have escaped from the gardens. It may be readily recognised by its musky odor.

☞ M. SYLVESTRIS has also extended itself beyond our gardens, and is becoming almost naturalized in several localities.

262. HIBISCUS. *Nutt. Gen.* 580.
[An ancient Greek name; of unknown derivation.]

CAL. double; outer one many leaved, inner 5 cleft. COR. petals 5. *Stig.* 5. CAPS. 5 celled, many seeded.

H. TRIONUM. *Willd.* Upper leaves ternate, or 3 parted, dentate, middle lobe long; inner calyx inflated.
Vulgo—Bladder Ketmia. Flower of an hour.
Fl. Middle of July, and after. *Fr. mat.* Beginning of September, and after.
Hab. Gardens; Indian corn-fields, &c. not common. 1 to 2 feet high: flowers yellowish white.

Obs. This foreigner is frequent about our gardens; and is beginning to extend itself into cultivated fields. It appears to be the variety *B.* (*ternatus,*) of Willdenow.

CLASS XVI. DIADELPHIA.

ORDER, HEXANDRIA.

263. CORYDALIS. *Nutt. Gen.* 587.

[Gr. *Korydalos*, a lark; Larkspur,—in reference to the calcarate nectaries.]

CAL. 2 leaved. COR. ringent. *Fil.* 2, membranaceous, each with 3 *anthers*. CAPS. siliquose, many seeded.

C. CUCULLARIA. *Ph.* Root bulbous; scape naked; raceme simple, sub-secund; spurs 2, divaricate.
Synon. Fumaria cucullaria. *Willd. Mx.* &c. *Vulgo*—Dutchman's Breeches. Breeches flower.
Fl. Latter end of April. *Fr. mat.*
Hab. Low grounds, along Brandywine: not common. 6 to 10 inches high: flowers white, mouth yellow.

Obs. This curious little plant occurs in a few places, along the margin of the Brandywine, near the forks: but I incline to doubt its being native there.

ORDER, OCTANDRIA.

264. POLYGALA. *Nutt. Gen.* 589.

[Gr. *Poly*, much, and *Gala*, milk; from its supposed influence on the secretion of milk.]

CAL. 5 leaved, 2 of them larger, wing-like, colored. COR. irregular. CAPS. obcordate, 2 celled, 2 valved.

P. SENEGA. *Ell.* Stem simple, weak, leafy; leaves alternate, lanceolate, subsessile; spike terminal, filiform.
Vulgo—Seneka Snake-root. Milk-wort. Mountain Flax.
Fl. Middle of May. *Fr. mat.*
Hab. Hilly woodlands: Bath; Brandywine: frequent. 9 to 15 inches high: flowers white.

Obs. The active medical properties of the root of this plant are extensively known. It is particularly valuable as a stimulating expectorant.

P. PURPUREA. *Nutt.* Leaves oblong-linear; spikes cylindric, obtuse; calyx wings twice as long as the capsule.
Synon. P. sanguinea. *Ph. Mx. Muhl?*
Fl. Last of July, till October. *Fr. mat.*
Hab. Sterile, low grounds; Patton's, &c. frequent. 5 to 10 inches high: flowers purple.

P. VERTICILLATA. *Nutt.* Leaves linear, verticillate and scattered; calyx wings shorter than the capsule.
Fl. Middle of July, and after. *Fr. mat.*
Hab. Woods, old fields, &c. frequent. 6 to 12 inches high: flowers greenish white, sometimes purplish.

P. AMBIGUA. *Nutt.* First leaves verticillate, the rest alternate; calyx wings equal with the capsule.
Fl. Middle of August, and after. *Fr. mat.*
Hab. Sterile soils: Barrens, &c. frequent. 9 to 15 inches: flowers purple and white.

Obs. This and the preceding species are nearly allied to each other. They are both slender plants, mostly branching, with filiform spikes of small flowers; but the flowers are rather larger in this than in the foregoing, and the spikes supported on longer peduncles.

ORDER, DECANDRIA.

A. FILAMENTS MOSTLY ALL UNITED: or Monadelphous.

265. LUPINUS. *Nutt. Gen.* 592.

[Derivation obscure: supposed from the Lat. *Lupus*, a wolf; because it was thought to injure the soil.]

CAL. bilabiate. *Anthers* 5 oblong, and 5 roundish. LEGUME coriaceous, torulose.

L. PERENNIS. *Ell.* Smoothish; flowers subverticillate; calyx not appendaged; banner emarginate.
Vulgo—Wild Lupin. Perennial Lupin.
Fl. Beginning of June. *Fr. mat.* Middle of July.
Hab. Gravelly soils: Valley hills: not common. 1 to 2 feet high: flowers purplish blue, or violet.

Obs. This ornamental plant is somewhat rare in this vicinity. I have occasionally seen it in the fields near the Boot tavern; but it is more frequent on the Great Valley hills.

266. CROTALARIA. *Nutt. Gen.* 593.

[Gr. *Krotalon*, a rattle; alluding to the ripe seeds which become loose, and rattle in the pods.]

Cor. banner obcordate, large; keel acuminate. *Filaments* with a dorsal fissure. Legume pedicellate, turgid.

C. sagittalis. *Ell.* Hirsute; erect; leaves lance-oblong; stipules sagittate, acuminate, decurrent.
Vulgo—Rattle-box.
Fl. Latter end of July, and after. *Fr. mat.* Middle of August, and after.
Hab. Sterile, sandy soils: N. of Dilworthtown: not common. 4 to 12 inches high: flowers yellow.

Obs. In 1818, I observed this plant to be quite abundant in a small old field, of Jacob Bennett, on the high ground S. E. of Birmingham meeting-house: but have rarely met with it since.

267. TEPHROSIA. *Nutt. Gen.* 622.

[Gr. *Tephros*, ash-colored; alluding to the cinereous, or hoary aspect of the plant.]

Cal. 5 cleft; segments subulate, nearly equal. Legume compressed, subcoriaceous.

T. virginiana. *Ell.* Hoary-villous; leaflets oval-oblong, mucronate; raceme terminal, subsessile.
Synon. Galega virginiana. *Willd. Muhl. Mx. Vulgo*—Cat-gut. Goats-Rue.
Fl. Latter end of June. *Fr. mat.* Last of September.
Hab. Barrens; and Valley hills: frequent. About 1 foot high: flowers yellowish white, tinged with purple.

Obs. This plant is almost exclusively confined to our slaty, barren woodlands, and the Great Valley hills, —where it is pretty frequent, growing in bunches, or clusters. The flowers are large, and handsome. The filaments are *sub-monadelphous*,—one being partially separated from the others, near the base. An infusion of the long slender roots is a popular remedy for worms, in children.

B. Filaments in 2 sets: mostly 9 together, and 1 separated.

a. *Legume many-seeded.* † *Stigma pubescent.*

268. PHASEOLUS. *Nutt. Gen.* 612.

[Lat. *Phaselus*, a boat; in reference to the figure of the legume.]

Cor. keel, with the stamens and style, spirally twisted. Legume compressed, falcate. *Seeds* reniform.

P. perennis. *Ell.* Voluble; leaves ternate, ovate, 3 nerved; racemes in pairs, longer than the leaves.
Synon. P. paniculatus. *Mx. Vulgo*—Wild Kidney Bean.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Rocky woodland, South of Milltown: rare. 4, to 6 or 8 feet long: flowers purple.

Obs. The leaves are remarkably tenacious, on the under surface, by means of hooked hairs. I have only met with this on the side of the road leading from Milltown to West-town School.

269. ROBINIA. *Nutt. Gen.* 620.

[Dedicated to *John* and *Vespasian Robin*, father and son; French Botanists.]

Cal. small, 4 cleft; upper segment 2 parted. Cor. banner large, reflexed, roundish. Legume compressed.

R. pseudacacia. *Ell.* Leaves unequally pinnate; stipules spinescent; racemes pendulous; legumes smooth.
Vulgo—Locust tree. False Acacia.
Fl. Latter end of May. *Fr. mat.* Middle of September.
Hab. Meadows; fence-rows, &c. frequent. 20 to 50 feet high: flowers white.

Obs. A handsome and valuable tree, celebrated for the durability of its wood. The culture of it has been much recommended, for posts of post-and-rail fences, in preference to live hedges; but this is still a moot point among some of our best farmers. (See *Memoirs Penn. Agric. Society.*) For my own part, I incline to prefer hedges.—Although this tree is quite frequent here, it has never appeared to me to be decidedly indigenous to this vicinity.

†† *Stigma without pubescence.*

270. APIOS. *Nutt. Gen.* 614.

[Gr. *Apios*, a pear-tree; its tuberous root resembling the fruit of that tree.]

Cal. upper lip truncate, lower 1 toothed. Cor. keel falcate, reflecting the banner. Legume sub-terete.

A. tuberosa *Ell.* Voluble; leaves unequally pinnate; leaflets ovate-lanceolate; root tuberous.
Synon. Glycine apios. *Willd. Mx. Muhl. Vulgo*—Ground nut. Wild Bean.
Fl. Latter end of July. *Fr. mat.* Latter end of September.
Hab. Woodlands, and thickets: Patton's: not common. 5 to 8 feet long: flowers purplish brown.

Obs. The tuberous root of this plant, it is said, formed an article of food to the aborigines of this country.

271. AMPHICARPA. *Nutt. Gen.* 615.

[Gr. *Amphi*, both, or about, and *Karpos*, fruit; producing fruit both above and at the surface of the earth.]

CAL. 4 toothed. COR. petals oblong, equal; banner with the sides appressed. LEGUME compressed, stipitate.

A. MONOICA. *Ell.* Racemes of the stem clustered, mostly sterile; peduncles below apetalous, fertile.
Synon. Glycine monoica. *Willd. Mx. Muhl. Ph.* *Vulgo*—Wild Bean-vine.
Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Woods, thickets, fence-rows, &c. common. 4, to 6 or 8 feet long: flowers white, or pale purple.

Obs. This slender vine is mostly found twining round shrubs: the racemes of the stem in pendulous clusters, and generally sterile—though I have several specimens bearing short falcate pods, about an inch long, and each for the most part containing three dark purple, or nearly black, compressed, subreniform seeds. The fruit, produced at the surface of the earth, I have not satisfactorily examined.

A. SARMENTOSA? *Ell.* Leaves rhomb-ovate; racemes sub-terminal, filiform; flowers few, incomplete.
Synon. Glycine sarmentosa? *Willd. Muhl. Ph.*
Fl. Beginning of August. *Fr. mat.*
Hab. Woodlands, along Brandywine: C. Brinton's, jr: rare. 2 to 4 feet high: flowers white.

Obs. I have met with this plant but once, in the woods above Brinton's ford, near the forks of the Brandywine. The whole plant is pilose—the leaves sprinkled with hairs on both sides, and ciliate on the margins,—rhomboid-ovate in figure, and acute. The racemes filiform, subterminal, and few flowered, (3 to 6) —the flowers small and incomplete, there being *no carina*;—but there *is* a partial corolla—viz. banner and wings,—which are spreading and white. The germ is villous—the mature fruit I have not seen.

b. *Legume mostly* 1 *seeded.*

272. TRIFOLIUM. *Nutt. Gen.* 604.

[Lat. literally meaning *three leaves;* a feature characteristic of the genus.]

Flowers sub-capitate: LEGUME valveless, included in the calyx, 1 to 4 seeded.

T. REPENS. *Ell.* Creeping; leaflets obovate, emarginate, serrulate; heads sub-globose; pods 3 or 4 seeded.
Vulgo—White Clover. Dutch Clover. Shamrock, of the Irish.
Fl. Latter end of May, and after. *Fr. mat.* July, and after.
Hab. Pastures; woodlands, &c. common. 6 to 12 inches long; flowers white.

Obs. It has been doubted, by some, whether this species of clover is a native. If not, it is certainly most completely naturalized. Mr. Pursh, who by the way seems to have been tinctured with the doctrine of equivocal generation, remarks that this is one of the plants "whose dissemination is really problematical:" —meaning, that it often makes its appearance in situations, and under circumstances, which he could not explain—for want of facts and observation! Mr. Elliott says it is eaten but sparingly by stock of any kind; and often produces salivation. In this region, however, it is esteemed as excellent pasture. It is rarely, if ever, cultivated artificially; but *comes in*, as the farmers term it, in good soils which are permitted to repose a few years. Honey-bees are remarkably fond of extracting the nectar from its flowers.

T. ARVENSE. *Ell.* Erect; villous; leaflets linear-oblanceolate; heads cylindric; calyx teeth long, plumosely [villous.
Vulgo—Stone Clover. Welsh Clover. Hare's foot Trefoil. Rabbit foot.
Fl. Last of June, till September. *Fr. mat.* Middle of August, and after.
Hab. Sterile, gravelly old fields, and roadsides: frequent. 6 to 12 inches high: flowers white, small.

Obs. A worthless species; generally indicative of poor land, and bad farming.

T. PROCUMBENS. *Ph.* Stems diffuse, hairy; leaflets cuneate-obovate, emarginate; heads oval, imbricate.
Vulgo—Yellow Clover. Small Hop Trefoil. Hop clover.
Fl. Last of May, and after *Fr. mat.*
Hab. Gravelly soil: Wilmington road, 4 miles below Dilworthtown: rare. 3 to 6 inches long: flowers yellow.

Obs. This humble species is believed to be a foreigner; and has not yet extended itself into this immediate vicinity; though it is gradually approaching. Mr. Schweinitz, in a note to me, remarks that "it ought to be noticed in your publication, on account of the curious steadiness of its peregrinations. I have been assured, by the late Rev. S. Kramsch, that when he came to Salem, N. C. about 1790, no trace of it was seen there. It is at this day (1825,) by far the most common plant in all old fields, &c. I myself noticed its regular advances deeper into the western country, for 10 years. Here, at Bethlehem, I have not observed it."

☞ For T. PRATENSE, or Red Clover, See Appendix of cultivated plants.

273. STYLOSANTHES. *Nutt. Gen.* 605.

[Gr. *Stylos*, a column, and *Anthos*, a flower; the corolla being supported on a pillar in the calyx.]

CAL. tubular, long, bearing the corolla above the *germ.* POD 1 or 2 jointed, hooked at the apex.

S. ELATIOR. *Ell.* Stem erect, pubescent on one side; leaflets lanceolate; bractes ciliate with long bristles.
Synon. S. hispida, *var.* erecta. *Ph. Mx.* *Vulgo*—Pencil flower.

Fl. Latter end of July, and after. *Fr mat.* Middle of September.
Hab. North hills of the Great Valley; rare elsewhere. 9 to 15 inches high: flowers yellow.

274. LESPEDEZA. *Nutt. Gen.* 607.

[In honor of Governor *Lespedez*, of Florida; "erga me peregrinatorem officiosissimus." *Mx.*]

CAL. bibracteate, 5 parted, segments subequal. COR. keel transversely obtuse. POD lenticular, unarmed.

L. SESSILIFLORA. *Ell.* Erect; leaflets oblong-oval; fascicles of flowers subsessile; pods mucronate.
Synon. Hedysarum reticulatum. *Willd. Muhl.* *Vulgo*—Bush Clover.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Dry, hilly woodlands: Barrens &c. frequent. 12 to 18 inches high: flowers purple.

L. VIOLACEA. *Ell.* Leaflets elliptic; racemes subumbellate, as long as the petioles; pods rhomboid, hairy.
Synon. Hedysarum violaceum. *Willd. Muhl.*
Fl. Last of August. *Fr. mat.* Middle of October.
Hab. Borders of woodlands: frequent. 1 to 2 feet high: flowers violet purple.

L. DIVERGENS. *Ph.* Branching; leaflets oblong, obtuse; racemes longer than the petioles; pods ovate.
Synon. Hedysarum divergens. *Willd. Muhl.*
Fl. Last of August. *Fr. mat.* Middle of October.
Hab. Dry woodlands: Barrens, near G. Vernon's: not common. 1 to 2 feet high: flowers purple.

Obs. Nearly allied to the preceding; but, as Mr. Elliott remarks, it is more diffusely branching; the leaflets are longer and larger—the inflorescence more racemose—and the pods less hairy.

L. ANGUSTIFOLIA? *Ell.* Branching; leaflets linear-oblong, pubescent beneath; racemes capitate.
Synon. L. capitata. *var.* angustifolia. *Ph?*
Fl. Last of August. *Fr. mat.* Middle of October.
Hab. Sandy bank, near Ed. Darlington's: not common. 12 to 18 inches high: flowers pale purple.

Obs. Mr. Schweinitz pronounced this to be L. angustifolia, *Ell.* and in some respects it answers pretty well; but not entirely to my satisfaction. I have never seen it half the size mentioned by Mr. Elliott—the pod protrudes considerably beyond the calyx—is rhomboid-ovate, acuminate, prominently veined, or nerved, and nearly glabrous.

L. STUVEI. *Nutt.* Erect; villous; leaflets oval; racemes on peduncles as long as the leaves.
Fl. Last of August. *Fr. mat.* Middle of October.
Hab. Woodlands: Barrens: not common. 2 to 3 feet high: flowers purple.

L. HIRTA. *Ell.* Erect; branching; very villous; leaflets roundish-oval; spikes on long peduncles.
Synon. L. polystachya. *Mx. Ph. Natt.* &c. Hedysarum hirtum. *Willd. Muhl.*
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Woodlands: Barrens: frequent. 2 to 4 feet high: flowers yellowish white.

L. PROCUMBENS. *Ell.* Procumbent; slender; leaflets oval; peduncles long; pods orbicular, pubescent.
Synon. Hedysarum prostratum. *Willd. Muhl.*
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Sandy bank, near Ed. Darlington's; rare. 1 to 2 feet long, flowers bright purple.

Obs. I am inclined to think the L. *prostrata*, of Pursh, is the same plant—although I perceive Mr. Elliott continues it as a distinct species.

c. *Legumes jointed; or in loments.*

275. HEDYSARUM. *Nutt. Gen.* 608.

[Gr. *Hedys*, sweet, and *Aroma*, perfume; in reference to the flowers of some of the species.]

CAL. 4 or 5 cleft. COR. keel transversely obtuse. LOMENT truncately jointed, compressed, mostly hispid.

H. NUDIFLORUM. *Ell.* Leaflets broad-oval, acuminate; scape naked, paniculate, taller than the leaf-stem.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Woodlands: common. Leaf-stem about 1 foot,—scape 1½ to 3 feet high: flowers purple.

Obs. I have specimens which closely resemble this, and yet the scape has three leaflets, or one ternate leaf, just below the panicle. Can they be the H. *glutinosum*, of Willdenow, and Pursh?

H. ACUMINATUM. *Ell.* Leaves crowded at summit; leaflets round-ovate, acuminate; peduncle terminal, long.
Fl. Beginning of July, and after. *Fr. mat.* Latter end of September.
Hab. Rich woodlands: common. 1 to 2 feet high: flowers purple; pod 2 to 4 jointed.

Obs. This has been supposed to be the H. *glutinosum*, of Willdenow; but it by no means accords with his description, with respect to the scape.

H. PANICULATUM. *Ell.* Leaflets linear-lanceolate, smoothish, margins revolute; lower calyx segment long.
Fl. Latter end of July, and after. *Fr. mat.* Beginning of October.
Hab. Open woodlands: frequent. 2 to 3 feet high: flowers purple; pod 2 to 4 jointed, tenacious.

Obs. With great deference to Mr. Elliott's judgment, I think *this* is Willdenow's H. paniculatum. See *Ell. Vol.* 2. *p.* 211. *in* H. *glabellum.*

H. OBTUSUM? *Ell.* Leaflets ovate, obtuse, lateral ones subcordate; joints of the pod suborbicular, reticulate.
Fl. Latter end of August. *Fr. mat.* Middle of October.
Hab. Dry woodlands: Barrens: not common. 1 to 2 feet high: flowers violet; pod about 2 jointed.

Obs. Mr. Schweinitz thought this was the H. *glabellum,* of Michaux, and Elliott; but on a careful re-examination, I incline to believe it is the H. obtusum—and such was the opinion of Dr. Baldwin, who saw my specimens.

H. BRACTEOSUM. *Ell.* Glabrous; leaflets ovate, acuminate and acute; bractes large, ovate, acuminate.
Synon. H. cuspidatum. *Willd. Muhl.*
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Woodlands, below the Bath: not common. 4 to 5 feet high: flowers purple; pod about 6 jointed.

H. CANADENSE. *Ell.* Stem angular-striate; leaflets lance-ovate, rather obtuse; racemes axillary & terminal.
Fl. Latter end of August. *Fr. mat.* Middle of October.
Hab. Woodlands: near Job Darlington's, &c. frequent. About 2 feet high: flowers purple; pod 4 jointed.

H. VIRIDIFLORUM. *Ph.* Pubescent; leaflets ovate, sub-acute, scabrous beneath; racemes very hairy.
Fl. Last of July, and after. *Fr. mat.* Beginning of October.
Hab. Thickets: T. Bennett's: not common. 3 to 4 feet high: flowers greenish purple; pod 3 to 5 jointed.

Obs. This appears to be distinct from Mr. Elliott's H. viridiflorum; the leaves being remarkably scabrous and tenacious on the *under* surface. The flowers, on shrivelling, become greenish, and often of an indigo blue. The peduncles are frequently quite viscid, as remarked by Mr. Elliott of his plant.

H. ROTUNDIFOLIUM. *Ell.* Stem prostrate, hirsute; leaflets orbicular; stipules cordate, acuminate.
Synon. H. canescens? *Willd.*
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Rocky woodlands: near Ed. Darlington's: not common. 2 to 4 feet long: flowers bright purple.

Obs. The flowers of this are showy and handsome—always of a deep, bright purple, so far as I have observed—the pod 3 to 5 jointed.
It is very probable there may be other species of this difficult genus, in this vicinity; but the foregoing are all that I have been able to determine with any degree of satisfaction.

CLASS XVII. SYNGENESIA.

ORDER, POLYGAMIA AEQUALIS.

A. FLORETS ALL LIGULATE: *Receptacle mostly naked.*

276. LEONTODON. *Nutt. Gen.* 627.

[Gr. *Leon, leontos,* a lion, & *Odous, odontos,* a tooth; from a fancied resemblance in the teeth of the leaves.]

CAL. oblong, double; outer one loose. *Pappus* stipitate, pilose, radiate. *Recept.* punctate.

L. TARAXACUM. *Ell.* Outer calyx reflexed; scapes 1 flowered; leaves runcinate, dentate.
Vulgo—Dandelion,—from the French, *Dent de lion.*
Fl. Middle of April till autumn. *Fr. mat.* June, and after.
Hab Pastures; meadows, &c. very common. Scapes 6 to 12 inches high: flowers yellow.

Obs. This well-known plant is a foreigner; but completely naturalized, and rather more common than welcome, in our fields and gardens. It is said to be esteemed as a salad, by some; and to possess diuretic properties,—as one of its vulgar names would indicate.

277. KRIGIA. *Nutt. Gen.* 633.

[In honor of *David Krieg;* a German Physician and Botanist.]

CAL. simple, many leaved. *Pappus* double; the outer 5 membranaceous scales, the inner 5 bristles.

K. VIRGINICA. *Ell.* Glaucous: early leaves roundish-spathulate, later ones lyrate; scapes finally long.
Synon. Hyoseris virginica. *Mx.* *Vulgo*—Dwarf Dandelion.

Fl. Middle of May, and after. *Fr. mat.* Beginning of June, and after.
Hab. Sandy, old fields; roadsides, &c. frequent. Scapes 3 to 9 inches high: flowers yellow.

Obs. The K. *dichotoma*, of Nuttall, is frequent here; though I incline to think, with Dr. W. P. C. Barton, that it is scarcely more than a *variety*. This seems to be a polymorphous plant, varying considerably in habit during its progress to maturity.

278. PRENANTHES. *Nutt. Gen.* 628.

[Gr. *Prenes*, drooping, or nodding, and *Anthos*, a flower; in reference to its nodding flowers.]

Florets 5 to 20, in a simple series: CAL. cylindric, calyculate. *Pappus* subsessile, pilose.

P. ALTISSIMA? *Ell.* Leaves 3 lobed, angled, denticulate, upper ones lance-ovate, acute; racemes axillary.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Open woodlands, &c. frequent. 3 to 6 feet high: flowers purplish yellow.

Obs. Nothing is more easy than to recognise the *genus* Prenanthes; but the leaves assume such a variety of shapes that it is by no means an easy matter to determine the *species*, satisfactorily. This comes nearer to the description of P. altissima, in Elliott's Sketch, than to any other; but the upper leaves are lance-ovate, and attenuated at base—which circumstance he does not mention.

P. CORDATA. *Ell.* Leaves cordate-ovate, denticulate, ciliate, upper ones lanceolate; panicle loose.
Fl. Last of August. *Fr. mat.* Beginning of October.
Hab. Woodlands: Patton's, &c. frequent. 1½ to 3 feet high: flowers pale yellow.

P. DELTOIDEA. *Ell.* Leaves denticulate, lower ones deltoid, upper lance-ovate; racemes axillary, small.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands: Bath, &c. frequent. 2 to 3 feet high: flowers purplish white.

P. SERPENTARIA? *Ph.* Lower leaves palmate and pinnatifid, decurrent on the petioles; panicles terminal.
Vulgo—Rattle-snake root. Lion's foot. Dr. Witt's Snake root.
Fl. Latter end of August, and after. *Fr. mat.* Beginning of October.
Hab. Borders of moist woodlands; thickets, &c. frequent. 3 to 5 feat high: flowers yellowish purple.

Obs. This a pretty stout, vigorous species, with purple stems and calyces—the lowest leaves mostly pinnatifid, the uppermost lanceolate, and the intermediate sub-palmate-lobed. It agrees partly with the descriptions given both of P. *serpentaria*, and P. *alba*. If they are really distinct, I am unable to determine to which this belongs. With respect to its virtues in curing the bite of the Rattlesnake, as announced by Pursh, and Schœpf, (for they both, probably, refer to the same plant,) I know nothing; but I know enough of such vaunted remedies to induce me to receive reports of that description with caution.

279. LACTUCA. *Nutt. Gen.* 629.

[Lat. *Lac, lactis*, milk; in reference to the milky juice of the plant.]

CAL. cylindric, imbricate, margins membranaceous. *Pappus* stipitate, pilose. *Seed* compressed.

L. ELONGATA. *Ell.* Glabrous; lower leaves runcinate, upper long-lanceolate; panicle corymbose.
Synon. L. longifolia. *Mx.* *Vulgo*—Wild Lettuce.
Fl. Middle of July, and after. *Fr. mat.* Middle of August, and after.
Hab. Fence-rows; cultivated grounds, &c. frequent. 2 to 5 feet high: flowers yellow.

Obs. The leaves of this plant are subject to much variety in their form.

280. SONCHUS. *Nutt. Gen.* 630.

[An ancient Greek name; of obscure meaning.]

CAL. ventricose, acuminate, imbricate. *Pappus* sessile, pilose. *Seed* somewhat oblong

S. OLERACEUS. *Ell.* Leaves amplexicaul, sinuate-dentate, and pinnatifid; flowers in umbels.
Vulgo—Common Sow-thistle.
Fl. Latter end of August. *Fr. mat.* Middle of September.
Hab. Gardens, and cultivated lots: frequent. 2 to 3 feet high. flowers palish yellow.

Obs. A foreigner; and rather an unwelcome intruder in our gardens, and other cultivated grounds. The flowers are about half the size of those of the Dandelion.

S. LEUCOPHÆUS. *Ph.* Leaves runcinate, acuminate; panicle virgate; flowers racemose; peduncles squamose.
Fl. Middle of August, and after. *Fr. mat.* Beginning of September, and after.
Hab. Fence-rows, and thickets: frequent. 3 to 5 feet high: flowers pale blue, smallish.

S. FLORIDANUS. *Ell.* Leaves lyrate-runcinate, petiolate; flowers paniculate; peduncles sub-squamose.
Fl. Middle of August, and after. *Fr. mat.* Beginning of September, and after.
Hab. Fence-rows, &c. frequent. 3 to 6 feet high: flowers blue, larger than the preceding.

Obs. This is another of the plants, which, according to Pursh, is *reputed* to cure the bite of the Rattlesnake. He says it is known by the name of *Gall of the Earth:* but Mr. Elliott refers that name to the Prenanthes alba—the root of which he says is excessively bitter.
I have specimens, also, which agree pretty well with the *S. acuminatus,* of Willdenow, and Elliott; with the pappus certainly *sessile.* See *Elliott.*

281. HIERACIUM. *Nutt. Gen.* 631.

[Gr. *Hierax,* a hawk; from an ancient notion, that hawks sharpened their sight with its juice. The absurdity of the idea, says Dr. Smith, proves the venerable antiquity of the name.]

CAL. ovate, imbricate. *Pappus* sessile, pilose. *Recept.* nearly naked. *Seed* oblong, sulcate.

H. VENOSUM. *Ell.* Leaves lance-obovate, ciliate, veins purple; scape naked, corymbose-paniculate.
Vulgo—Veiny-leaved Hawk-weed. Adder's tongue. Poor Robin's Plantain.
Fl. Latter end of May, and after. *Fr. mat.* Last of June, and after.
Hab. Dry, open woodlands: common. 1 to 2 feet high: flowers yellow.

H. SCABRUM. *Ph.* Hirsute; leaves elliptic-obovate, sessile; panicle compact; pedicels divaricate.
Synon. H. marianum. *Willd. Muhl. Ell.*
Fl. Middle of August, and after. *Fr. mat.* Latter end of September.
Hab. Woodlands: Patton's &c. frequent. 1 to 2 feet high: flowers yellow.

H. GRONOVII. *Ell.* Leaves oblanceolate, long-haired; stem naked above; peduncles glandular-pilose.
Fl. Middle of August, and after. *Fr. mat.* Latter end of September.
Hab. Woodlands; and sterile meadow banks: frequent. 1½ to 3 feet high: flowers yellow.

H. PANICULATUM. *Ell.* Glabrous; stems leafy, paniculate; pedicels slender; leaves lanceolate, denticulate.
Fl. Middle of August, and after. *Fr. mat.* Last of September.
Hab. Woodlands, and old meadows: frequent. 2 to 3 feet high: flowers yellow, smallish.

B. FLORETS ALL TUBULAR. a. *Flowers capitate.*

282. LIATRIS. *Nutt. Gen.* 639.

[A name of uncertain origin.]

CAL. oblong, imbricate. *Pappus* persistent, plumose, colored. *Seed* pubescent, obconic. *Recept.* naked.

L. SPICATA. *Ell.* Leaves lance-linear, acute; spike long; flowers sessile; calyx scales oblong, obtuse.
Synon. L. macrostachya. *Mx. Ph.* *Vulgo*—Blue Blazing Star. Button Snake-root.
Fl. Beginning of August. *Fr. mat.* Last of September.
Hab. Borders of moist woodlands: Bath, &c. frequent. 2 to 5 feet high: flowers purple.

Obs. This handsome plant is a popular medicine; the infusion and tincture, of the root, being often used in cases of chronic debility, rheumatism, &c. How efficacious it may be, I know not.

283. VERNONIA. *Nutt. Gen.* 640.

[In honor of *William Vernon;* an English Botanist.]

CAL. ovate, imbricate. *Pappus* double; the outer chaffy, short, the inner pilose. *Recept.* sub-cellular.

V. NOVEBORACENSIS. *Ell.* Leaves long-lanceolate, scabrous; calyx scales filiform at apex.
Vulgo—Iron weed.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of September, and after.
Hab. Meadows, and low grounds: common. 3 to 5 feet high: flowers deep purple.

Obs. A well known, obnoxious weed in our meadows; which neat farmers are careful to eradicate.

V. PRÆALTA. *Ph.* Leaves oval-lanceolate, pubescent beneath; calyx scales ovate, acuminate.
Fl. Middle of August, and after. *Fr. mat.* Middle of September, and after.
Hab. Woodlands, thickets, and low grounds: frequent. 4 to 7 feet high: flowers deep purple.

Obs. This so closely resembles the preceding, that I am sometimes ready to doubt whether they are specifically distinct.

284. ARCTIUM. *Nutt. Gen.* 636.

[Gr. *Arktos*, a bear; its bristly burs resembling the rough hairs of a bearskin. *De Theis.*]

CAL. globose; scales hooked inwards at the points. *Pappus* bristly, scabrous. *Recept.* chaffy.

A. LAPPA. *Fl. Brit.* Leaves oblong-cordate, petiolate; flowers paniculate; calyx smooth.
Vulgo—Bur-dock.
Fl. Middle of July, and after. *Fr. mat.* Last of August, and after.
Hab. About houses, gardens, fence-rows, &c. common. 2 to 5 feet high: flowers purple.

Obs. A naturalized foreigner, known to every body; and an unwelcome intruder. Its burs are particularly troublesome in the fleeces of sheep, horses' manes, &c. and neat farmers are careful to keep the plant in subjection. It is, however, a popular article in domestic medicine. The root and seeds are often used, in infusion, in cases of cholic: and the leaves are a favorite external application in fevers, head-aches, &c.

285. CNICUS. *Nutt. Gen.* 638.

[An ancient Greek name, from *knizo*, to sting; alluding to its prickles.]

CAL. ventricose; scales mostly spinose. *Pappus* sessile, plumose. *Recept.* villous.

§ 1. *Leaves all pinnatifid.*

C. LANCEOLATUS. *Ph.* Leaves decurrent, hispid; calyx ovate; scales lanceolate, spreading.
Synon. Carduus lanceolatus. *Fl. Brit.* &c. *Vulgo*—Common Thistle.
Fl. Last of June, and after. *Fr. mat.* Last of July, and after.
Hab. Rich pastures; fence-rows, &c. common. 2 to 4 feet high: flowers purple.

Obs. This is believed to be a foreigner; and an obnoxious weed it is:—but being biennial, it may be kept under, by means of vigilance, and industry.

C. DISCOLOR. *Ell.* Leaves sessile, hoary-tomentose beneath; calyx globose; scales ovate, appressed.
Fl. Beginning of August, and after. *Fr. mat.* Last of August, and after.
Hab. Moist, low grounds: Patton's, &c. frequent. 2 to 4 feet high: flowers purple.

C. ODORATUS. *Muhl.* Woolly; leaves sub-amplexicaul; calyx sub-globose; scales lanceolate, appressed.
Synon. C. pumilus. *Nutt.* *Vulgo*—Sweet scented Thistle.
Fl. Middle of July. *Fr. mat.* Middle of August.
Hab. Old fields: Barrens, &c. frequent. 1½ to 2 feet high: flowers reddish purple, large.

Obs. In my specimens the stems, and ribs of the leaves, are densely covered with long lanuginous hairs—the segments of the leaves armed with very long spines—and the calyx frequently subtended by pinnatifid, spinose bractes.

C. MUTICUS. *Ell.* Branching; leaves woolly beneath, segments spinulous; calyx globose; scales unarmed.
Synon. Cirsium muticum. *Mx.*
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab Low grounds, and borders of swamps: common. 3 to 5 feet high: flowers deep purple.

Obs. The calyx scales of this species are lanuginous, and usually viscid. It is rather a troublesome plant in our low meadow grounds.

§ 2. *Radical leaves only pinnatifid.*

C. ALTISSIMUS. *Ell.* Stem leaves sessile, lance-oblong, scabrous above, downy beneath; calyx ovate, bracteate.
Fl. Middle of August, and after. *Fr. mat.* Last of September.
Hab. Sandy banks, along fences; Barrens, &c. frequent. 4 to 8 feet high: flowers pale purple.

Obs. I have frequently met with a plant much resembling this, but of smaller size, (2 to 3 feet high,) and *none* of the leaves pinnatifid. I have always supposed it to be a mere variety:—but it may possibly be the C. *virginianus*, of Elliott,—if, indeed, that be a distinct species,—which I perceive Mr. Eaton does not admit. See *Eaton's Manual*, p. 265.

☞ The C. HORRIDULUS, I have not seen on this side of New Jersey: and the C. ARVENSIS, or Canada Thistle, happily for us, has not yet made its appearance in this region.

b. *Flowers discoid: Receptacle naked.*

286. MIKANIA. *Nutt. Gen.* 643.

[In honor of *Joseph Mikan*; a Botanist of Prague.]

CAL. 4 or 6 leaved, equal, 4 or 6 flowered. *Style* long, bifid. *Pappus* pilose.

M. SCANDENS. *Ell.* Stem twining, glabrous; leaves opposite, petiolate, sub-hastate-cordate, acuminate.
Synon. Eupatorium scandens. *Mx.*
Fl. Middle of August. *Fr. mat.*
Hab. Swamps; along rivulets, &c. rare. 3 to 5 feet long: flowers white, or bluish white.

Obs. I have not yet found this plant in the immediate vicinity of West-Chester; but I have seen it at the Yellow Springs, 10 miles north; and at Mr. Wm. Jackson's, in Londongrove.

287. EUPATORIUM. *Nutt. Gen.* 642.

[Dedicated to *Eupator*, king of Pontus; who, it is alleged, first used it as a medicine.]

CAL. oblong, mostly imbricate. *Style* long, bifid. *Pappus* pilose, scabrous. *Seed* 5-striate, or angled.

§1. *Calyx with not more than 5 florets.*

E. SESSILIFOLIUM. *Ell.* Leaves opposite, sessile, ovate-lanceolate, rounded at base, serrate, glabrous.
Fl. Beginning of August, and after. *Fr. mat.* Latter end of September.
Hab. Borders of woodlands: Bath, &c. frequent. 2 to 3 feet high: flowers white.

E. MELISSOIDES. *Ph.* Leaves petiolate, ovate, rather obtuse, obtusely serrate, veined, sub-glabrous.
Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Dry, sterile soils; R. Strode's: frequent. 1 to 2 feet high: flowers white.

§2. *Calyx with more than 5 florets.*

E. PERFOLIATUM. *Ell.* Leaves connate-perfoliate, rugose, tomentose beneath; stem villous.
Synon. E. connatum. *Mx.* *Vulgo*—Thorough-stem. Thorough-wort. Indian Sage. Bone-set.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September, and after.
Hab. Low, swampy grounds: common. 2 to 4 feet high: flowers white.

Obs. This plant is well known as possessing valuable medical properties. The cold infusion of the flowers and leaves is an excellent tonic, in proper doses; and may often be given when peruvian bark is inadmissible. When administered warm, it is diaphoretic; and, in large quantities, is actively emetic and cathartic. I have used it extensively, and with much satisfaction.

E. AGERATOIDES. *Ell.* Glabrous; leaves petiolate, lance-ovate, acuminate, coarsely serrate; calyx scales [equal.
Synon. E. urticæfolium. *Mx.*
Fl. Last of August, and after. *Fr. mat.* Last of September.
Hab. Woodlands: Brandywine, &c. frequent. 2 to 3 feet high: flowers very white.

E. AROMATICUM. *Ell.* Leaves petiolate, cordate, obtusely serrate; flowers corymbose, branches opposite.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands: R. Strode's, &c. frequent. 1½ to 2 feet high: flowers white, fragrant.

§3. *Calyx scales scariose: Leaves mostly verticillate.*

E. TRIFOLIATUM. *Ph.* Stem solid; leaves petiolate, mostly in threes, ovate, tapering at each end, serrate.
Synon. E. ternifolium? *Ell.*
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Woodlands: Bath, &c. frequent. 3 to 5 feet high: flowers pale reddish purple.

Obs. My specimens agree pretty well with Mr. Elliott's E. ternifolium, except in the leaves,—which are distinctly attenuate at each end. The upper leaves are frequently opposite. I have the authority of Mr. Schweinitz for my plant.

E. PURPUREUM. *Ell.* Stem hollow, purple; leaves petiolate, in 3's, 4's or 5's, lance-oval, rugose-veined.
Fl. Middle of August, and after. *Fr. mat.* Last of September.
Hab. Low meadows, and swampy grounds: frequent. 3 to 6 feet high: flowers deep purple.

E. VERTICILLATUM. *Ph.* Stem solid; leaves petiolate, in 3's or 4's, lance-ovate, cuneate at base, serrate.
Fl. Beginning of August, and after. *Fr. mat.* Latter end of September.
Hab. Woodlands, and low grounds: frequent. 4 to 6 feet high: flowers purple.

Obs. This is certainly nearly allied to E. trifoliatum, above mentioned. I have several other specimens of this difficult family, which I have not been able to ascertain satisfactorily, from the books,—although they are doubtless all comprised in Dr. Muhlenberg's catalogue.

288. CACALIA. *Nutt. Gen.* 645.

[An ancient Greek name; etymology obscure.]

CAL. oblong, cylindric, squamose, or sub-calyculate at base. *Pappus* pilose.

C. ATRIPLICIFOLIA. *Ell.* Herbaceous; leaves petiolate, glaucous beneath; cauline rhomboid, sinuate-lobed.
Vulgo—Indian Plantain. Heal-all. Orach-leaved Caraway.
Fl. Latter end of July. *Fr. mat.* Middle of October.
Hab. Woodlands; and low, shaded grounds: frequent. 3 to 5 feet high: flowers greenish white.

Obs. The leaves of this plant are held in popular esteem, here, as an application to wounds,—and Boerhaave long ago remarked, "vis est emolliens, vulnera consolidat, si folia externe applicentur:" But I apprehend the medical virtues are very trifling.

ORDER, POLYGAMIA SUPERFLUA.

A. Flowers discoid: *Receptacle* mostly naked.

289. GNAPHALIUM. *Nutt. Gen.* 656.

[Gr. *Gnaphalon*, soft down, or wool; alluding to the prevailing habit of the genus.]

Cal. imbricate; marginal scales rounded, scariose, shining, colored. *Pappus* pilose, scabrous.

G. polycephalum. *Ell.* Stem paniculate, woolly; leaves lance-linear, woolly beneath; corymbs terminal.
Synon. G. obtusifolium. *Willd.* *Vulgo*—Sweet scented Life-everlasting. Cud-weed.
Fl. Latter end of August. *Fr. mat.* Middle of October.
Hab. Thin soils: old fields, and pastures: common. 1 to 2 feet high: flowers white, odorous.

Obs. The infusion of this is a popular medicine in dysenteries; but probably not very valuable. I strongly suspect that this is the plant referred to by Barton, in *Flor. Philad.* under G. *margaritaceum*, as being "every where abundant" in old fields, &c. It is, however, certainly distinct from G. margaritaceum, as I have received it, from New England.

G. plantagineum. *Ell.* Dioicous; shoots procumbent; radical leaves spathulate; corymb clustered.
Vulgo—White Plantain. Mouse-ear. Early Life-everlasting. Plaintain-leaved Cud-weed.
Fl. Latter end of April. *Fr. mat.* Latter end of May.
Hab. Sterile meadow banks; woodlands, &c. common. 6 to 12 inches high: whole plant bluish white.

G. purpureum. *Ell.* Stem simple; leaves linear-spathulate; flowers glomerate, axillary and terminal.
Fl. Latter end of July. *Fr. mat.* Latter end of August.
Hab. Dry, sandy banks: frequent. 4 to 12 inches high: flowers dingy purple.

G. germanicum. *Ph.* Stem dichotomous above; leaves lance-linear; flowers globose-capitate.
Fl. Beginning of July. *Fr. mat.* Beginning of August.
Hab. Borders of woodlands: Jas. Huey's old farm: not common. 5 to 9 inches high: flowers straw-colored.

G. uliginosum. *Ph.* Diffusely branched; leaves lance-linear, narrow at each end; flowers crowded.
Fl. Latter end of July. *Fr. mat.* Latter end of August.
Hab. Low grounds: exsiccated ponds, &c. frequent. 4 to 6, or 8 inches high: flowers yellowish brown.

290. TANACETUM. *Nutt. Gen.* 652.

[Altered from the Gr *Athanasia; a*, not, and *Thanatos*, death; because its flowers do not decay. *De Theis.*]

Cal. hemispherical, imbricate, scales acuminate. Cor. rays obsolete, trifid. *Pappus* sub-marginate.

T. vulgare. *Fl. Brit.* Leaves bipinnatifid, incised-serrate, naked; corymbs terminal.
Vulgo—Tansey.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Gardens; fence-rows; roadsides, &c. frequent. 2 to 4 feet high: flowers deep yellow.

Obs. This foreigner is gradually becoming naturalized. The infusion is highly popular among the good ladies, as an emmenagogue; and it certainly possesses some tonic virtues,—combined with pretty strong aromatic properties.

B. Flowers mostly radiate. a. *Receptacle naked.*

291. CHRYSANTHEMUM. *Nutt. Gen.* 671.

[Gr. *Chrysos*, gold, and *Anthemon*, flower; from the golden color of the disk.]

Cal. hemispherical, imbricate; inner scales scariose. *Pappus* 0, or marginate.

C. leucanthemum. *Ell.* Erect, sparingly branched; leaves amplexicaul, oblong, incised-dentate.
Vulgo—Daisy. Ox-eye Daisy. White weed. Richardson's Clover.
Fl. Beginning of June, and after. *Fr. mat.* Last of June, and after.
Hab. Fields, meadows, and borders of woods: frequent. 12 to 20 inches high: rays white, disk yellow.

Obs. This foreigner is perhaps the vilest weed which has yet invaded our farms; and is spreading itself in a manner calculated to excite the serious concern of reflecting Agriculturists. It is a plant which cattle generally refuse to eat: it takes almost exclusive possession of the soil,—is difficult to eradicate, completely,—and produces seeds in great abundance. It has not, as yet, become so prevalent in this immediate vicinity, as it is in several other districts,—especially to the northward and eastward of us; but there can be little doubt that it will speedily pervade every part of our country,—unless resisted by the vigilant and active co-operation of the whole agricultural community. It is in vain for one, or a few, to contend against such a pest, whilst others supinely or negligently permit it to flourish on their premises.

292. SENECIO. *Nutt. Gen.* 664.

[Lat. *Senex*, an old man; from its pappus resembling a grey beard,—or its receptacle a bald head.]

CAL. cylindric, sub-calyculate; scales sphacelate at point. *Pappus* pilose, copious.

§ 1. *Rays none.*

S. HIERACIFOLIUS. *Ell.* Stem virgate-paniculate; leaves oblong, amplexicaul, acute, dentate; calyx smooth.
Vulgo—Fire-weed. Hawk-weed. Groundsel.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of September, and after.
Hab. Newly cleared grounds; and moist places: frequent. 2 to 4 feet high: florets white.

Obs. The name, "*fireweed*," by which this plant is usually known, originated from the circumstance of its generally making its appearance on spots where fire has recently been. It is, however, always abundant in new clearings of rich woodland, whether there has been fire or not. I know not why it should have been called *hieracifolius*; for, in its general aspect, it resembles a *Sonchus*, more than a *Hieracium*.

§ 2. *Radiate.*

S. BALSAMITÆ. *Ell.* Radical leaves oblong, crenate; cauline lyrate-pinnatifid; flowers sub-umbellate.
Vulgo—Balsam Groundsel.
Fl. Middle of May, and after. *Fr. mat* Middle of June, and after.
Hab. Meadows, fields, &c. frequent. 1 to 2 feet high: flowers yellow.

Obs. I have specimens with radical leaves orbicular, obovate, and spathulate; but there is such a close general resemblance among them, that I am not certain of having other species. I have the authority both of Mr. Schweinitz, and Dr. Torrey, for this.

293. INULA. *Nutt. Gen.* 658.

[Etymology obscure: supposed to be corrupted from *Helenium*—which see.]

CAL. squarrose, or imbricate. COR. rays numerous, linear. *Anthers* bisetose at base. *Pappus* pilose.

I. HELENIUM. *Fl. Brit.* Leaves amplexicaul, ovate, rugose, woolly beneath; calyx scales ovate.
Vulgo—Elecampane.
Fl. Middle of July. *Fr. mat.* Latter end of August.
Hab. About houses, gardens, fence-rows, &c. frequent. 3 to 5 feet high: flowers yellow.

Obs. This foreigner has strayed from the gardens, and is becoming naturalized. The root is mucilaginous, and is a very popular ingredient in the preparation of pectoral syrups. It is also said to have been a principle article in the composition of a *specific*, whilom of some notoriety among the credulous, for the prevention and cure of *hydrophobia*. The nostrum is still, probably, manufactured and sold for the benefit of the *proprietor*, if not of the public,—and is, doubtless, about *as efficacious* as Scull-cap, Water plantain, or Chick-weed.

294. ERIGERON. *Nutt. Gen.* 657.

[Gr. *Er*, spring, and *Geron*, an old man; the plant being hoary in the spring.]

CAL. imbricate. COR. rays linear, narrow. *Pappus* mostly double; outer chaffy, minute; inner pilose.

E. BELLIDIFOLIUM. *Ell.* Hirsute; radical leaves spathulate-obovate, dentate; cauline lanceolate, entire.
Synon. E. pulchellum. *Mx.* *Vulgo*—Poor Robert's Plantain.
Fl. Middle of May, and after. *Fr. mat.* Last of June, and after.
Hab. Borders of woods, &c. frequent. 12 to 18 inches high: flowers about 3, rays pale purple, long.

Obs. This is said to have been one of the *Indian* remedies, for the bite of the rattlesnake. It is rarely, if ever, used as a medicine, in this vicinity.

E. PHILADELPHICUM? *Ph.* Pubescent; leaves cuneate-oblong, cauline semi-amplexicaul; rays capillary.
Fl. Beginning of June. *Fr. mat.* Latter end of July.
Hab. Woodlands, along Brandywine: frequent. 2 to 3 feet high: rays pale purple.

Obs. I have always taken this for the E. philadelphicum: and yet on a careful re-examination, it agrees in several characteristics with the E. *purpureum*, of Willdenow, and Pursh. The upper leaves are entire,—the peduncles are considerably thickened, or enlarged, next the calyx, and the lower ones elongated. Not having seen both species, I cannot determine to which ours belongs. I think, however, it is the E. philadelphicum of Mr. Elliott's Sketch; and am pretty confident it is that of Barton's Flora Philadelphica.

E. STRIGOSUM. *Ph.* Strigose-pilose; leaves lanceolate, tapering at base, coarsely dentate, or entire.
Vulgo—Flea-bane. Daisey.
Fl. Latter end of May, and after. *Fr. mat.* Middle of July, and after.
Hab. Pastures, and upland meadows, &c. very common. 2 to 3 feet high: flowers smallish, rays white.

Obs. This weed is so abundant as to be rather a nuisance on our farms.

E. HETEROPHYLLUM. *Ph.* radical leaves round-ovate, deeply toothed, petiolate; cauline lanceolate, acute.
Fl. Middle of June, and after. *Fr. mat.* Beginning of August, and after.
Hab. Pastures, &c. Patton's: frequent. About 3 feet high: rays pale purple, or white.

E. CANADENSE. *Ell.* Stem hispid, paniculate; leaves lance-linear, ciliate; calyx cylindric.
Vulgo—Horse-weed. Butter-weed. Hog-weed. Pride-weed. Canadian Flea-bane.
Fl. Beginning of August, and after. *Fr mat.* Middle of September, and after.
Hab. Fields, &c. every where common. 6 inches, to 4 feet high: flowers white, small, numerous.

Obs. This troublesome weed is reputed to possess medical virtues; as, indeed, are all the preceding,—except perhaps E. strigosum. This species is often bruised, and applied to fresh incised wounds, in popular practice—when a simple bandage, of clean rag, would probably be quite as beneficial.

295. SOLIDAGO. *Nutt. Gen.* 660.

[Lat. *solido*, to make firm, or to heal; from its supposed vulnerary properties.]

CAL. imbricate; scales appressed. *Radial florets* about 5. *Pappus* simple, pilose. *Recept.* punctate.

§ 1. *Racemes secund, recurved.*

S. RUGOSA? *Ell.* Stem hispid; leaves lanceolate, scabrous, rugose, serrate; panicle spreading.
Fl. Latter end of August, and after. *Fr. mat.* Beginning of October.
Hab. Low grounds: Patton's, &c. frequent. 3 to 6 feet high: flowers yellow.

Obs. There seems to be two or three *varieties* of this species.

S. SCABRA. *Ph.* Stem sulcate; leaves oblong, tapering at each end, glabrous above, scabrous beneath.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Borders of thickets; Bath, &c. frequent. 2 to 5 feet high: flowers yellow.

S. PYRAMIDATA? *Ell.* Stem subterete, striate; leaves lance-oblong, subentire, margin ciliate.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Sterile old fields, &c. frequent. 2 to 3 feet high: flowers yellow.

Obs. I have the authority of Mr. Schweinitz for this species; but from its prevalence here, I incline to think it must have been known to Dr. Muhlenberg, and other botanists, under another name.

S. NEMORALIS. *Ell.* Stem tomentose; leaves lanceolate, tapering at base, lower ones subcuneate.
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Low grounds: Patton's, &c. frequent. 2 to 3 feet high: flowers yellow.

S. ULMIFOLIA. *Ell.* Stem villous; leaves lance-oval, serrate, hairy beneath; peduncles villous.
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Swamps, and low woodlands: Patton's: frequent. 2 to 4 feet high: flowers yellow.

§ 2. *Racemes erect.*

S. BICOLOR. *Ell.* Hairy-pubescent; leaves elliptic, acute, tapering at base, lower ones serrate.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands, and low grounds: frequent. 1 to 3 feet high: flowers yellowish white.

S. ERECTA? *Ell.* Stem and peduncles roughish-pubescent; leaves lance-oval, acute at each end.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Woodlands: Bath, &c. frequent. 1 to 2 feet high: flowers pale yellow.

Obs. Mr. Schweinitz pronounced this to be S. erecta. Some of the lower leaves are a very broad oval, tapering abruptly, at base, to a marginate petiole. To me it seems to approach the preceding, in habit.

S. LANCEOLATA. *Ph.* Stem branching; leaves lance-linear, entire; corymbs terminal, fastigiate.
Synon. S. graminifolia. *Ell.* Euthamia graminifolia. *Nutt.*
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Low grounds; borders of woods, &c. frequent. 2 to 4 feet high: flowers yellow.

S. CÆSIA. *Ph.* Stem smooth, glaucous; leaves lanceolate, acuminate, serrate; racemes axillary.
Vulgo—Golden rod.
Fl. Beginning of September, and after. *Fr. mat.* Middle of October.
Hab. Woodlands: common. 1 to 3 feet high: flowers yellow.

Obs. All the species are known by the common name of *Golden rod;* but this one is so called by way of eminence, in this vicinity. It is reputed medicinal, by some dealers in simples, who allege that it is a remedy for the bite of snakes, &c. but I apprehend its virtues are unimportant.

We have, doubtless, other species of this difficult genus; but the foregoing are all that I have been able, as yet, to determine with any degree of satisfaction,—even with the assistance of my botanical friends.

296. ASTER. *Nutt. Gen.* 659.

[Gr. *Aster*, a Star; from the appearance of its radiated flowers.]

CAL. imbricate, lower scales spreading. *Radial florets* generally more than 10. *Pappus* pilose.

§ 1. *Leaves entire.*

A. LINARIIFOLIUS. *Ell.* Leaves numerous, linear, mucronate, margins scabrous; corymb umbellate.
Synon. Chrysopsis linariifolia. *Nutt.*
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Dry, hilly woodlands: Barrens, &c. frequent. 9 to 18 inches high: rays purple, disk yellow.

A. TENUIFOLIUS? *Ell.* Much branched; leaves lance-linear; flowers racemose on the main branches.
Fl. Latter end of August, and after. *Fr. mat.* Latter end of September.
Hab. Old fields; roadsides, &c. very common. 1 to 3 feet high: flowers small; rays white.

Obs. This is a very abundant, and rather troublesome weed, in all our old fields, and pastures. The flowers are about the size of a half dime, very numerous, and white. I have other specimens, which approach it very nearly, with pale *purple* rays. Indeed, I think we have what might be enumerated as the A. *ericoides*, A. *multiflorus*, and A. *dumosus*, of the books; but not being able to determine them satisfactorily, I shall pass them over for the present.

A. HUMILIS. *Ell.* Leaves lance-oval, acuminate at each end, margins hispid; corymb sub-dichotomous.
Synon. A. cornifolius. *Willd. Muhl.* A. infirmus. *Mx.* Chrysopsis humilis. *Nutt.*
Fl. Middle of August, and after. *Fr. mat.* Last of September.
Hab. Woodlands: Patton's; Barrens, &c. frequent. 1 to 2 feet high; flowers large; rays white.

A. SALICIFOLIUS? *Ph.* Stem simple, corymbose above; leaves lanceolate, acuminate, tapering at base.
Fl. Beginning of September. *Fr. mat.* Beginning of October.
Hab. Moist woodlands: Patton's &c. frequent. 2 to 4 feet high: rays white, rarely purplish.

Obs. Mr. Schweinitz considered this the A. salicifolius; but it fits the description of A. *amygdalinus* so well that I cannot help entertaining some doubts on the subject. The margins of the leaves are scabrous; the stem corymbose at summit; and the flowers mostly with long, narrow, white rays—rarely of a pale blush color.

A. PHLOGIFOLIUS. *Ph.* Leaves lance-oblong, base cordate, amplexicaul; panicle lax, few-flowered.
Synon. A. amplexicaulis. *Mx.* A. undulatus? *Ell.*
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands: Bath; Patton's, &c. frequent. 1 to 2 feet high: rays violet-purple.

§ 2. *Leaves serrate: cordate, and ovate.*

A. DIVERSIFOLIUS. *Ell.* Lower leaves with winged petioles, upper sessile; panicle lax; branches racemose.
Synon. A. undulatus. *Willd. Ph.*
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Woodlands, and fence-rows: frequent. 2 to 3 feet high: rays pale blue, or violet.

A. CORDIFOLIUS. *Ell.* Lower leaves cordate, acute, upper spathulate-ovate; petioles winged, hairy.
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Woodlands: Patton's, &c. frequent. 1 to 2 feet high: rays pale purple, long.

A. CORYMBOSUS. *Ell.* Leaves ovate, acuminate, acutely serrate, petioles naked; corymb sub-fastigiate.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September, and after.
Hab. Borders of woodlands; roadsides, &c. frequent. 1 to 2 feet high: rays white.

A. MACROPHYLLUS. *Ph.* Lower leaves petiolate, oblong-cordate, serrate, large, upper ones sessile, ovate.
Fl. Middle of August, and after. *Fr. mat.* Latter end of September.
Hab. Woodlands: Bath, &c. frequent. 1 to 2 feet high: rays white, sometimes pale blue.

§ 3. *Leaves lanceolate, and ovate: lower ones serrate.*

A. LÆVIGATUS? *Ell.* Branching; glabrous; leaves lanceolate, sub-amplexicaul, upper ones nearly entire.
Fl. Beginning of September. *Fr. mat.* Middle of October.
Hab. Woodlands: Bath, &c. frequent. 2 to 3 feet high: rays reddish blue, long.

Obs. Mr. Schweinitz called this A. lævigatus; but if the A. *lævis*, of Willdenow, is really a distinct species, I should incline to refer my specimens to the latter.

A. VERSICOLOR? *Ell.* Much branched; leaves sub-amplexicaul, broad-lanceolate, upper ones entire.
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Hilly fields, and uplands: frequent. 1 to 2 feet high: flowers small, numerous, rays white.

Obs. The branches are crowded with flowers, and thickly set with small, oval, entire leaves.

A. CONCINNUS. *Ph.* Stem simple, paniculate at summit; leaves lanceolate, sub-amplexicaul, glabrous.
Fl. Beginning of October. *Fr. mat.* Last of October.
Hab. Woodlands: near Wm. Brinton's Lime quarry: rare. 1 to 2 feet high: rays pale purple, long.

A. PUNICEUS. *Ph.* Stem hispid; leaves amplexicaul, lanceolate, serrate, rough; branches paniculate
Fl. Middle of September. *Fr. mat.* Middle of October.
Hab. Borders of swamps; thickets, &c. frequent. 2 to 4 feet high: rays blue, long, disk yellow.

A. SEROTINUS? *Ph.* Glabrous; leaves oblong-lanceolate, acuminate, sessile; branches corymbose.
Fl. Beginning of October. *Fr. mat.* Beginning of November.
Hab. Moist, shaded grounds: forks of Brandywine: not common. 3 to 5 feet high: rays pale purple, long.

Obs. This agrees pretty well with the A. serotinus, of Willdenow, and Pursh,—except that the rays of the flowers are often *nearly white*, or very slightly tinged with reddish purple.

A. CONYZOIDES. *Ell.* Leaves lance-oval, lower ones tapering at base to a petiole, upper ones sessile.
Synon. A. marilandicus. *Mx.*
Fl. Last of July, and after. *Fr. mat.* Middle of September, and after.
Hab. Woodlands: Patton's; Barrens, &c. frequent. 12 to 18 inches high: rays white.

A. LANCEOLATUS? *Willd.* Glabrous; lower leaves ovate-lanceolate, petiolate, upper lanceolate, sessile.
Fl. Latter end of August. *Fr. mat.* Last of September.
Hab. Woodlands; Wm. Osborn's: not common. About 2 feet high: rays white, large.

Obs. I am by no means confident of this species. The lower stem-leaves are ovate-lanceolate, serrulate, sub-cordate at base, on marginate petioles about 2 inches in length; the upper leaves are narrow-lanceolate, sessile, and nearly entire. The flowers are beautifully white; and crowded on the branches, in somewhat racemose panicles.

I have several other specimens of this formidable genus, which I have not yet been able to determine sufficiently, to warrant the attempt to enumerate them; and I have no doubt there may be a number more, in this vicinity, which have hitherto escaped my notice. I fully concur, however, with Mr. Nuttall, in the opinion, that many species have been created out of our numerous polymorphous *varieties*.

b. *Receptacle mostly chaffy.*

297. HELENIUM. *Nutt. Gen.* 684.

[An ancient name; said to have been derived from *Helen*, the Greek beauty. See *De Theis.*]

CAL. simple, many parted. COR. *rays* semi-trifid. *Pappus* chaffy, 5 leaved, awned. *Recept.* globose

H. AUTUMNALE. *Ell.* Leaves lanceolate, serrate, sub-decurrent; flowers corymbose; rays flat, reflexed.
Vulgo—False Sun-flower. Sneeze-weed.
Fl. Middle of August, and after. *Fr. mat.* Middle of October.
Hab. Creek banks: Brandywine, abundant. 2 to 5 feet high: flowers yellow.

Obs. The powdered receptacle, and calyx, possess active errhine properties.

298. ANTHEMIS. *Nutt. Gen.* 679.

[Gr. *Anthemon*, a flower; from the great number which it produces.]

CAL. hemispherical, sub-equal. COR. *rays* more than 5. *Pappus* 0, or a membranaceous margin.

A. ARVENSIS. *Wg.* Receptacle conic; chaff lanceolate; seed crowned with a margin.
Vulgo—Field Chamomile. Corn Chamomile.
Fl. Beginning of June. *Fr. mat.* Latter end of July.
Hab. Cultivated grounds; and pastures: Patton's, &c. frequent. About 1 foot high; rays white.

Obs. A foreigner; but becoming naturalized. This species is *inodorous*.

A. COTULA. *Ell.* Receptacle conic; chaff setaceous; seed naked; leaflets subulate, 3 parted.
Vulgo—May weed. Stinking Chamomile. Richardson's Pink. Dog's Fennell.
Fl. Last of June till autumn. *Fr. mat.* August, and after.
Hab. Roadsides; farmyards, &c. common. 6 to 9 inches high: rays white.
Obs. A disagreeable, fetid little foreign weed; which has become extensively naturalized.

299. ACHILLEA. *Nutt. Gen.* 680.

[In honor of *Achilles*, a disciple of Chiron; who first introduced it to notice.]

CAL. ovate, imbricate. COR. *rays* 5 to 10, roundish. *Pappus* 0.

A. MILLEFOLIUM. *Ell.* Stem sulcate; leaves bipinnatifid, hairy, segments linear, dentate, mucronate.
Vulgo—Yarrow. Milfoil. Nose-bleed. Sneeze-wort.
Fl. Beginning of June till September. *Fr. mat* August, and after.
Hab. Fence-rows; pastures, &c. common. 2 to 3 feet high: flowers white.
Obs. A naturalized foreigner. It is a pleasant, aromatic bitter; and popular as a tonic—used in infusion.

ORDER, POLYGAMIA FRUSTRANEA.

Receptacle chaffy.

300. RUDBECKIA. *Nutt. Gen.* 690.

[In honor of *Olaus Rudbeck*, Father and Son; Swedish Botanists.]

CAL. sub-equal; scales in a double series. *Pappus* a 4 toothed margin. *Recept.* conic.

R. LACINIATA. *Ph.* Stem glabrous; lower leaves pinnate, leaflets 3 lobed, upper ones ovate; pappus crenate.
Vulgo—Cone-flower. Cone-disk Sunflower.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Moist, low grounds: Brandywine: frequent. 4, to 6 or 8 feet high: rays yellow, large, drooping.

R HIRTA. *Ell.* Hirsute; stem virgate, sub-ramose; peduncles naked; leaves lance-ovate.
Fl. Beginning of July. *Fr. mat.* Middle of September.
Hab. Thicket, below B. Ogden's: not common. 3 to 5 feet high: rays yellow, disk dark purple.

301. HELIANTHUS. *Nutt. Gen.* 689.

[Gr. *Helios*, the sun, and *Anthos*, a flower; from the resemblance of its flower.]

CAL. imbricate, sub-squarrose, foliaceous. *Pappus* chaffy, 2 leaved, caducous. *Recept.* flat.

§ 1. *Leaves opposite.*

H. DIVARICATUS? *Ell.* Stem glabrous, branching; leaves lance-ovate, scabrous above, sessile.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September.
Hab. Borders of woods; and thickets: frequent. 2 to 4 feet high: flowers yellow.

H. FRONDOSUS? *Ph.* Leaves ovate, sharply serrate, petiolate; peduncles scabrous.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September.
Hab. Dry woodlands; fence-rows, &c. frequent. 2 to 3 feet high: flowers yellow.

H. MOLLIS. *Ell.* Leaves ovate-lanceolate, scabrous above, hoary-pubescent and soft beneath.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Woodlands: Bath, &c. frequent. 2 to 4 feet high: flowers yellow.

Obs. In my specimens the leaves are *all* opposite, and tapering at base to short petioles. I have not been able fully to satisfy myself, from the books, relative to the foregoing species of Helianthus; though I have but little doubt as to this last.

§ 2. *Leaves alternate.*

H. GIGANTEUS. *Willd.* Scabrous; branching; leaves lanceolate, obsoletely serrate, subsessile.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab. Borders of thickets, &c. frequent. 5 to 8 feet high: flowers yellow.

302. BIDENS. *Nutt. Gen.* 691.

[Lat. *Bidens*, having two teeth; alluding to the awns, or teeth, crowning the seeds.]

CAL. sub-equal, calyculate. COR. *rays* often wanting. *Pappus* 2, or 4 scabrous awns. *Seed* 4 sided.

B. CERNUA. *Ph.* Flowers sub-radiate, shorter than the outer calyx; leaves lanceolate, sub-connate.
Fl. Beginning of September, and after *Fr. mat.* Middle of October.
Hab. Ditches; and low swampy grounds: frequent. 1½ to 3 feet high: flowers yellow; awns 2.

Obs. Pursh was certainly *safe* in asserting, of the species of this genus, that "the most of them *are either without or with rays*"!

B. CHRYSANTHEMOIDES. *Ph.* Flowers radiate, rays long; leaves oblong, tapering at each end, connate.
Fl. Last of August, and after. *Fr. mat.* Beginning of October.
Hab. Along rivulets; swamps, &c. frequent. 1 to 2 feet high: flowers yellow, showy; awns 2.

Obs. There seems to be some *varieties* of this; or perhaps, as Mr. Elliott suggests, there may be distinct species passing under this name.

B. FRONDOSA. *Ell.* Flowers discoid; outer calyx very long; lower leaves pinnate, upper ones ternate.
Vulgo—Bur Marygold. Beggar-ticks.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Gardens; fence-rows, &c. common. 2 to 4 feet high: flowers yellowish, inconspicuous; awns 2.

Obs. This is an obnoxious weed in our gardens, and cultivated lots—especially when in seed; as these adhere by their awns, to clothing, &c. in great numbers.

B. BIPINNATA. *Ell.* Flowers subradiate; leaves bipinnate; leaflets lanceolate, pinnatifid.
Vulgo—Spanish Needles. Hemlock Beggar-ticks.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Gardens; fields, &c. common. 2 to 4 feet high: flowers yellow; seed long; awns 3, or 4.

Obs. This, also, is a well known, troublesome weed, in the fall of the year.

ORDER, POLYGAMIA NECESSARIA.

303. POLYMNIA. *Nutt. Gen.* 697.
[Supposed to be dedicated to one of the *Muses;* on account of its beauty.]

CAL. double; outer 4 or 5 leaved, inner 10 leaved; leaflets concave. *Pappus* 0. *Recept.* chaffy

P. CANADENSIS. *Ell.* Viscid; villous; lower leaves pinnatifid, upper ones 3 lobed, or entire.
Fl. Middle of August. *Fr. mat.*
Hab. Brandywine, near M. Batten's: very rare. 3 to 5 feet high: flowers yellow.

Obs. I have not met with this plant growing wild, myself; but my amiable and venerable friend, the late Mr. John Jackson, who was an excellent practical botanist, and paid much attention to the plants of this region, informed me he had seen it growing native in the above locality.

CLASS XVIII. GYNANDRIA.

ORDER, MONANDRIA.

304. ORCHIS. *Nutt. Gen.* 706.
[A whimsical *Greek* name; and more tolerable in Greek than English.]

COR. ringent, upper leaflet vaulted. *Lip* dilated, base spurred beneath. *Pollinia* 2, terminal, adnate.

O. CILIARIS. *Ell.* Lip lance-oblong, pinnate-ciliate; spur longer than the germ.
Fl. Middle of July. *Fr. mat.*
Hab. Low, moist grounds: rare. 1 to 2 feet high: flowers deep yellow.

Obs. This species grows in the alluvial district towards Wilmington, Del.—also in the Great Valley, and on the farm of Mr. John D. Steele, in West-Bradford: but has not yet been found in this immediate vicinity.

O. LACERA. *Mx.* Lip long, 3 parted, segments capillaceous-multifid; spur the length of the germ.
Fl. Latter end of June. *Fr. mat.*
Hab. Moist woodlands: Jesse Good's: rare. 1 to 2 feet high: flowers greenish white.

Obs. The O. *psycodes*, of Pursh, Willdenow, &c. is probably distinct from this; as they speak of the flowers being *yellow.* In other respects, however, it seems to approach it.

O. TRIDENTATA. *Willd.* Lip lanceolate, 3 toothed at apex; spur filiform at apex, longer than the germ.
Synon. O. clavellata? *Mx. Ell. Nutt.* &c.
Fl. Latter end of July. *Fr. mat.*
Hab. Moist thickets: Geo. Vernon's: not common. 6 to 12 inches high: flowers pale green:

O. SPECTABILIS. *Ell.* Lip obovate, crenate; spur clavate, shorter than the germ; bractes large.
Synon. O. humilis. *Mx.* *Vulgo*—Priest in the Pulpit.
Fl. Beginning of May. *Fr. mat.*
Hab. Rich woodlands: Bath, &c. frequent. 6 to 9 inches high: flowers purple and white.

O. HERBIOLA. *Ph.* Lip oblong, obtuse, toothed at base on each side; palate 1 toothed; spur shorter than the germ.
Synon. Habenaria herbiola. *Brown in Ait. Kew. ed.* 2. *secund. Ph.*
Fl. Beginning of June. *Fr. mat.*
Hab. Moist thickets: on my farm: rare. 12 to 18 inches high: flowers yellowish green.

Obs. The existence of this rare species seems to have been doubted by our later writers on American plants; as it is not noticed, either by Muhlenberg, Nuttall, or Elliott. Even Pursh himself did not see it. But the description given in his *Supplement, p.* 743, fits my plant precisely, so far as it goes; and I am further confirmed, as to the species, by Dr. Torrey, to whom I sent a specimen. The stem is angular, flexuose, leafy; leaves 3, or 4, oblong-lanceolate, acute, 1 to 2 inches wide, and 4 to 6 inches long; bractes lanceolate, twice as long as the flowers; root fasciculate.

O. FIMBRIATA. *Willd.* Lip 3 parted, segments cuneate, ciliate-fimbriate; spur longer than the germ.
Fl. Latter end of July. *Fr. mat.*
Hab. Wet,low grounds: Bath; Ed. Darlington's: rare. 2 to 3 feet high: flowers purple, showy.
Obs. This is a rare, and very beautiful plant. I have only found two or three specimens in all this vicinity.

305. GOODYERA. *Nutt. Gen.* 708.

[ ]

COR. ringent; the 2 lower petals placed under the gibbous, undivided *lip*. *Style* free. *Pollen* angular.

G. PUBESCENS. *Ell.* Leaves radical, ovate, petiolate, reticulately veined; scape and flowers pubescent.
Synon. Satyrium repens. *Mx.* Neottia pubescens. *Willd. Muhl. Ph.* *Vulgo*—Rattle Snake Plantain.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Woodlands: frequent. 12 to 18 inches high: flowers greenish white.

306. NEOTTIA. *Nutt. Gen.* 709.

[Gr. *Neottia*, a bird's nest; from a fancied resemblance in its fibrous roots.]

COR. ringent; the 2 lower petals placed under the beardless *lip*. *Style* apterous. *Pollen* farinaceous.

N. TORTILIS. *Ell.* Radical leaves linear; flowers spirally secund; lip trifid, crisped, crenulate.
Synon. Ophrys æstivalis. *Mx.* *Vulgo*—Ladies traces, or tresses.
Fl. Latter end of July, and after. *Fr. mat.* Beginning of October.
Hab. Borders of fields; meadows, &c. frequent. 9 to 15 inches high: flowers white.

N. CERNUA. *Ell.* Leaves lanceolate; flowers in a dense spike, recurve-nodding; lip oblong, entire, acute.
Synon. Ophrys cernua. *Mx.*
Fl. Latter end of August, and after. *Fr. mat.* Middle of October.
Hab. Moist thickets: Patton's; Barrens, &c. frequent. 6 to 15 inches high: flowers greenish white.
Obs. I have specimens which vary somewhat in appearance; but perhaps are not specifically distinct.

307. POGONIA. *Nutt. Gen.* 712.

[Gr. *Pogon*, a beard; the lip of the flower being crested, or bearded.]

Petals 5, distinct, without glands. *Lip* sessile, cucullate, internally crested. *Pollen* farinaceous.

P. VERTICILLATA. *Ell.* Leaves 5, verticillate, lance-oval; stem 1 flowered; outer petals very long, linear.
Synon. Arethusa verticillata. *Willd. Muhl. Ph.*
Fl. Middle of May. *Fr. mat.*
Hab. Moist woodlands: Patton's, &c. frequent. 9 to 15 inches high: flowers brownish purple.
Obs. The whorled leaves of this plant give it much of the habit of *Gyromia*. The long outer petals somewhat resemble the beards of a *Cat-fish*.

308. TRIPHORA. *Nutt. Gen.* 713.

[Abbreviated from the Gr. *Trianthophoros*; literally, bearing 3 flowers.]

Petals 5, distinct, equal, connivent. *Lip* unguiculate, cucullate. *Style* spathulate, apterous.

T. PENDULA. *Ell.* Root tuberous; stem leafy; leaves ovate; flowers 1 to 3, pedunculate.
Synon. Arethusa parviflora. *Mx.* A. pendula. *Willd. Muhl. Ph.*
Fl. Latter end of August, and after. *Fr. mat.*
Hab. Rich woodlands: Ed. Darlington's: not common. 4 to 6 inches high: flowers pale purple.
Obs. This delicate little plant is remarkable for the oblong, fleshy tubers, connected with its roots, after the manner of potatoes.

309. MALAXIS. *Nutt. Gen.* 719.

[Gr. *Malaxis*, softness; in reference to the delicate texture of the plant.]

Petals 5, narrow, spreading. *Lip* flattened, undivided. *Style* extended. *Pollinia* 4, affixed to the stigma.

M. LILIIFOLIA. *Ell.* Leaves 2, oval; scape triquetrous; inner petals filiform, reflexed; lip obovate.
Vulgo—Tway-blade.
Fl. Middle of June. *Fr. mat.* Middle of September.
Hab. Moist woodlands: Patton's, &c. frequent. 4 to 6 inches high: flowers yellowish brown.

310. MICROSTYLIS. *Nutt. Gen.* 719.

[Gr. *Micros* small, and *Stylos*, a style; in reference to the minute column, or style.]

Petals 5, 1 deflected, 2 inner ones filiform. *Lip* concave, erect, truncate, bidentate. *Style* minute.

M. OPHIOGLOSSOIDES. *Nutt.* Leaf one, ovate, amplexicaul; scape angled, sulcate; flowers small.
Synon. Malaxis unifolia. *Mx.* M. ophioglossoides. *Willd. Ell.* &c. *Vulgo*—Adder's tongue.
Fl. Middle of July. *Fr. mat.*
Hab. Wet, low grounds: Wollerton's: not common. 6 to 9 inches high: flowers greenish white.

311. CORALLORHIZA. *Nutt. Gen.* 720.

[Gr. *Korallion*, coral, and *Rhiza*, a root; the roots resembling coral, in form.]

Petals equal, connivent. *Lip* mostly produced at base. *Style* free. *Pollinia* 4, oblique.

C. ODONTORHIZA? *Ell.* Root branched; scape sheathed, leafless; flowers pedicellate; capsule obovate.
Synon. Cymbidium odontorhizon? *Willd. Ph.* Ophrys corallorhiza? *Mx.*
Fl. Latter end of July, and after. *Fr. mat.* Middle of October.
Hab. Woodlands: Wollerton's, &c. frequent. 9 to 12 inches high: flowers brownish.

Obs. I have not examined the recent plant lately, and am unable to determine, from my specimens, whether this is the C. *odontorhiza*, or C. *innata*.

C? HYEMALIS. *Ell.* Leaf one, radical, lance-oval, many nerved; lip 3 cleft, not produced at base.
Synon. Cymbidium hyemale. *Willd. Muhl. Ph.* *Vulgo*—Adam and Eve. Winter Green.
Fl. Latter end of May. *Fr. mat.* Last of September.
Hab. Rich woodlands: along Brandywine: not common. 9 to 15 inches high: flowers greenish brown.

Obs. I think it may well be doubted whether this plant properly belongs to this genus. Pursh says the root affords a cement for broken china, &c. which is "exceedingly durable;" but from the trials which I have made of it, I cannot confirm his statement.

ORDER, DIANDRIA.

312. CYPRIPEDIUM. *Nutt. Gen.* 722.

[Gr. *Kypris*, venus, and *Podion*, a shoe; the inflated nectary, or lip, resembling a slipper.]

Petals 4, spreading, under one bifid. *Lip* ventricose, inflated. *Style* terminating in a petaloid lobe.

C. PUBESCENS. *Ell.* Stem leafy; outer petals ovate-oblong, acuminate, inner ones long, linear, contorted.
Synon. C. calceolus? *Mx.* *Vulgo*—Noah's Ark. Yellow Mocasin flower.
Fl. Beginning of May. *Fr. mat.* Middle of August.
Hab. Rich woodlands, and low grounds: frequent. 12 to 18 inches high: petals purplish green, lip yellow.

C. HUMILE. *Ell.* Leaves radical, in pairs, oblong, obtuse; scape 1 flowered, with 1 bracteal leaf.
Synon. C. acaule. *Mx.* *Vulgo*—Purple Mocasin flower. Lady's Slipper.
Fl. Middle of May. *Fr. mat.*
Hab. Woodlands: Great Valley hills: rare. 9 to 12 inches high: lip deep purple, large.

Obs. I have not found this species in this immediate vicinity; but some very fine specimens were brought to me, in May last, (1825) by D. Meconkey, Esqr. who collected them near the *Diamond Rock*, in Tredyffrin township; about 2 miles north of the Paoli.

ORDER, HEXANDRIA.

313 ARISTOLOCHIA. *Nutt. Gen.* 723.

[A Greek name; given on account of the medicinal virtues of the plant.]

CAL. 0. COR. superior, 1 petalled, tubular; base ventricose; border dilated, lingulate. CAPS. 6 celled.

A. SERPENTARIA. *Ell.* Stem flexuose; leaves cordate-oblong, acuminate; peduncles radical.
Vulgo—Virginia Snake-root. Little Snake-root. Birth-wort.
Fl. Beginning of June. *Fr. mat.* Last of July.
Hab. Rich woodlands: frequent. 9 to 15 inches high: flowers purplish brown.

Obs. The valuable medicinal properties of the root of this plant are well known.
Mr. Wm. Jackson sent me specimens from Londongrove township, in this county, which appear to be the A. *sagittata*, of Muhlenberg, or A. *hastata*, of Nuttall, and Elliott. The leaves are sublanceolate, acute, auriculate at base, and pubescent.

CLASS XIX. MONOECIA.

ORDER, DIANDRIA.

314. LEMNA. *Nutt. Gen.* 28.

[Supposed from the Gr. *Lemna*, or *Lemma*, a husk, shell, or skin; from the form of its leaves.]

MALE, *Cal.* 1 leaved, roundish, entire, opening on one side. *Cor.* 0.
FEMALE, *Cal.* as in the male. COR. 0. *Style* 1. *Utriculus* 1 or 2 seeded.

L. MINOR. *Ell.* Fronds elliptic, or subovate, flat, cohering at base; roots solitary.
Vulgo—Duck-meat.
Fl. Beginning of June? *Fr. mat.*
Hab. Stagnant waters: along Brandywine: frequent. Very minute; floating on the surface.

Obs. I have but rarely detected the flowers on this diminutive plant: and am unable to determine, to my own satisfaction, whether it properly belongs to this class, or not: though I observe Mr. Elliott retains it here.

ORDER, TRIANDRIA.

315. CAREX. *Nutt. Gen.* 733.

[Supposed from the Lat. *carere*, to lack, or want; because the male spikes are destitute of fruit.]

Flowers glumaceous, imbricated in an *Ament:* MALE, *Cal.* a single scale. *Cor.* 0.
FEM. *Cal.* a scale. *Cor.* 1 glumed, ventricose, inclosing the triquetrous *Seed* *Stigmas* 2 or 3

§ 1. SPIKES ALL ANDROGYNOUS.

a. *Spike mostly solitary. Male flowers at base. Stigmas* 3.

C. SQUARROSA. *Schw.* Spike simple, oblong-oval; fruit imbricate, horizontal, beaked.
Synon. C. typhina. *Mx.* C. cephalophora? *Eaton.* *Vulgo*—Sedge. Sedge-grass.
Fl. Latter end of May. *Fr. mat.* Latter end of August.
Hab. Low, wet woodlands: frequent. 1 to 2 feet high: spikes rarely 2, or 3.

Obs. For an excellent account of the North American Carices, see the Monograph of Mr. Schweinitz, edited by Dr. Torrey, in the 1st Volume of the Annals of the Lyceum of Natural History, of New York.

b. *Spikelets several, aggregated into a head. Male flowers at summit.*

C. CEPHALOPHORA. *Schw.* Spikelets crowded in an elliptic head; fruit ovate, compressed, marginate.
Fl. Middle of May. *Fr. mat.* Latter end of July.
Hab. Hilly woodlands: Jos. Osborne's, &c. frequent. About 2 feet high: spikelets 3 to 6, clustered.

c. *Spikelets distinct. Stigmas* 2. † *Male flowers at summit.*

C. BROMOIDES. *Schw.* Spikelets linear-oblong, alternate, remote, erect; fruit oblong, beaked.
Fl. Latter end of April. *Fr mat.* Middle of July.
Hab. Swamps, forming *tussocks*: frequent. 12 to 18 inches high: spikelets about 4.

C. ROSEA. *Schw.* Spikelets remote, few flowered, a long bracte at the base of the lower one; fruit ovate.
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Moist woodlands: Bath, &c. frequent. 9 to 18 inches high: spikelets 3 to 6, small.

C. MUHLENBERGII. *Schw.* Spikelets ovate, alternate, approximate, bracteate at base; fruit ovate, marginate.
Fl. Middle of May. *Fr. mat.* Latter end of July.
Hab. Dry, stony hills: Barrens, &c. frequent. 1 to 2 feet high: spikelets about 5.

Obs. In general appearance this resembles C. cephalophora; and might be readily confounded with it by a careless observer.

C. STIPATA. *Schw.* Spike oblong, compound, aggregate; fruit oblong-lanceolate, acuminate, spreading.
Synon. C. vulpinoidea. *Mx.*
Fl. Latter end of April. *Fr. mat.* Latter end of June.
Hab. Swamps; and moist, low grounds: frequent. 1½ to 3 feet high: spikelets 10 to 20.

C. MULTIFLORA. *Schw.* Spike oblong, decompound; spikelets conglomerate, ovate-oblong, bracteate.
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Swamps; and low grounds: common. 1 to 2 feet high: spikelets numerous, in clusters.

†† *Female flowers at summit.*

C. SCOPARIA. *Schw.* Spikelets ovate, sessile, aggregate; fruit ovate-lanceolate, marginate.
Synon. C. leporina. *Mx.*
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Swamps; and wet meadows: common. 1 to 2 feet high: spikelets 5 to 7, tawney when mature.

C. FESTUCACEA. *Schw.* Spikelets obovate, sub-approximate; fruit roundish-ovate, rostrate, alate.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Low grounds; woodlands, &c. frequent. About 2 feet high: spikelets 5 to 8, greenish.
Obs. This species bears considerable resemblance to the preceding.

§ 2. SPIKES, SOME ONLY ANDROGYNOUS.

Terminal spike only androgynous. Stigmas 3.

C. VIRESCENS. *Schw.* Spikelets oblong, erect; terminal one male below, pedunculate; fruit ovate, obtuse.
Fl. Latter end of May. *Fr. mat.* Beginning of August.
Hab. Hilly woodlands: barrens, &c. frequent. 1 to 2 feet high: spikelets 3, rarely 4, greenish.

C. HIRSUTA. *Schw.* Spikelets ovate-oblong; terminal one on a short peduncle; fruit roundish-ovate.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Low grounds; woodlands: common. 12 to 18 inches high: spikelets mostly 3.
Obs. This approaches the preceding very nearly, and may readily be confounded with it.

C. DIGITALIS. *Schw.* Spikelets linear, slender, distant, pedunculate; fruit oblong, sub-triquetrous.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Woodlands: Bath; Patton's, &c. frequent. 12 to 18 inches high: spikelets mostly 4, rarely 5.

§ 3. SPIKES, MALE AND FEMALE DISTINCT.

a. *Male spike mostly solitary. Stigmas* 3. † *Female spikes sessile; or the peduncles inclosed.*

C. VARIA. *Schw.* Female spikelets ovate, subapproximate, few-flowered, sessile; male oblong, subsessile.
Fl. Middle of April. *Fr. mat.* Middle of June.
Hab. Dry, stony banks; woodlands, &c. frequent. 5 to 8 inches high: female spikelets about 3.
Obs. I have specimens much resembling this, with long, creeping roots, which Mr. Schweinitz marked C. *stolonifera*. Perhaps they are not specifically distinct; as Dr. Muhlenberg says of this, "*radix repens.*" I think it quite probable we have also C. *marginata*, here; but I do not find any, in my collection, which exactly suit the description.

C. PUBESCENS. *Schw.* Female spikelets oblong, lowest on a short peduncle; culm and leaves pubescent.
Fl. Beginning of May. *Fr. mat.* Middle of July.
Hab. Woodlands: forks of Brandywine: frequent. 12 to 18 inches high: female spikelets about 3.

C. TENTACULATA. *Schw.* Female spikes ovate-cylindric, sessile; fruit ovate, ventricose, long-beaked.
Synon. C. rostrata. *Mx.*
Fl. Latter end of May. *Fr. mat.* Beginning of August.
Hab. Swamps; and wet places: very common. 12 to 18 inches high: female spikes 2, or 3.
Obs. This is perhaps our most common species: the whole plant yellowish green.

C. LUPULINA. *Schw.* Female spikes ovate-oblong, approximate; fruit ovate, ventricose, long-beaked.
Fl. Middle of June. *Fr. mat.* Latter end of August.
Hab. Wet, low grounds: Jos. Taylor's; Brandywine: frequent. 2 to 3 feet high: female spikes 2 to 5.

C. FOLLICULATA. *Schw.* Female spikes roundish, few-flowered: fruit inflated, acuminate.
Fl. Beginning of June. *Fr. mat.* Middle of August.
Hab. Low, swampy grounds: frequent. 1½ to 2 feet high: female spikes 2, often but 1.

†† *Female spikes on exsert peduncles, partly sheathed at base.*

C. XANTHOPHYSA. *Schw.* Female spikes ovate, remote, pedunculate; fruit oblong-conoid, beaked.
Fl. Middle of June. *Fr. mat.* Last of August.
Hab. Wet, low grounds: Patton's; Brandywine: frequent. 2 to 3 feet high: female spikes 2 to 4.

Obs. Mr. Schweinitz remarked to me that this was *not* the C. xanthophysa, of *Muhlenberg*; the latter plant being the C. *striata*, of Mr. S. This species seems to resemble C. lupulina more than C. folliculata; but is readily distinguished by its distant, pedunculate female spikes.

C. ANCEPS. *Schw.* Female spikes cylindric, remote, lax-flowered; leaves broad, striate, glaucous.
Synon. C. plantaginea. *Muhl. Willd? Mx. Ph? Ell.*
Fl. Last of April. *Fr. mat.* Beginning of July.
Hab. Woodlands: Bath, &c. frequent. 9 to 15 inches high: female spikes 2 to 4.

Obs. The broad radical leaves continue green through the winter; and Dr. Muhlenberg says the younger ones afford good food for cattle,—which is not usually the case with this genus.

C. SCABRATA. *Schw.* Female spikes cylindric, lower one on a long peduncle; fruit ovate, scabrous.
Fl. Beginning of June. *Fr. mat.* Last of August.
Hab. Wet places: Ed. Darlington's meadow: not common. 1 to 2 feet high: female spikes 3 to 5.

Obs. The leaves, and indeed the whole plant, remarkably scabrous. Mr. Schweinitz observed that this was "a very rare species" to him.

C. CONOIDEA. *Schw.* Female spikes slender, loose-flowered; lower peduncle long; fruit oblong-conic.
Fl. Latter end of April. *Fr. mat.* Latter end of June.
Hab. Woodlands: Bath, &c. frequent. 6 to 12 inches high: female spikes mostly 2.

C. LAXIFLORA. *Schw.* Female spikes oblong, the lowest remote; fruit ovate-oblong, ventricose, obtuse.
Fl. Middle of May. *Fr. mat.* Middle of July.
Hab. Low grounds: Patton's; Brandywine: frequent. 12 to 18 inches high: female spikes 3 or 4.

C. FLEXUOSA. *Schw.* Female spikes filiform, distant, pendulous; fruit alternate, oblong, beaked.
Synon. C. debilis. *Mx.*
Fl. Beginning of June. *Fr. mat.* Beginning of August.
Hab. Woodlands: Patton's, &c. frequent. 12 to 18 inches high, slender: female spikes about 4.

††† *Female spikes on long peduncles, nearly naked.*

C. MILIACEA. *Schw.* Female spikes filiform, upper peduncle short; fruit ovate, triquetrous.
Fl. Beginning of May. *Fr. mat.* Beginning of July.
Hab. Low grounds: Patton's, &c. frequent. 1 to 2 feet high, slender; female spikes about 3.

b. *Male spikes several. Stigmas* 2.

C. CRINITA. *Schw.* Female spikes cylindric, long, pendulous; calyx linear, long, margins hispid.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Wet places: Bath, &c. common. 2 to 3 feet high: female spikes 2 to 4; male about 3.

Obs. The terminal spikes of this species are often androgynous.

C. ACUTA. *Schw.* Female spikes cylindric, subnutant, subpedunculate, remote; fruit oblong, beak short.
Fl. Latter end of April. *Fr. mat.* Beginning of July.
Hab. Swamps: frequent. 1½ to 2 feet high: female spikes 2, or 3; male 1 to 3.

Obs. This and some of the other species grow in large turfy bunches, in swamps,—forming what our farmers call *Tussocks*. In reclaiming those swamps, it has been found that the best mode of disposing of the roots of the Carices, is to cut them out, and, when dry, put them in heaps, and burn them. The burnt earth and ashes of the roots, are nearly as valuable as an equal bulk of barnyard manure.

We have doubtless several other species of this numerous and difficult family; but the foregoing are all that I have yet collected, in this vicinity. They are all sanctioned by the high authority of Mr. Schweinitz, and Dr. Torrey.

316. SCLERIA. *Nutt. Gen.* 734.

[Gr. *Skleros*, hard; in reference to its hard, polished seeds.]

MALE, *Cal.* 2 to 6 valved, many flowered. *Cor.* glumes awnless.
FEM. *Cal.* 2 to 6 valved, 1 flowered. *Cor.* 0. *Stigmas* 1 to 3. *Nut* colored, subglobose.

S. TRIGLOMERATA. *Ell.* Stem acutely triquetrous; leaves lance-linear; nut smooth.
Vulgo—Whip-grass.
Fl. Beginning of June. *Fr. mat.* Middle of July.
Hab. Barren ridge, frequent: rare elsewhere. 2 to 3 feet high. Nut white.

Obs. This is not the S. triglomerata, of Pursh. I have a specimen from Georgia, which seems to be identical with ours.

S. PAUCIFLORA. *Ell.* Stem triquetrous; leaves linear; nut rugose, or papillate.
Fl. Latter end of May. *Fr. mat.* Beginning of July.
Hab. Barren ridge, abundant: rare elsewhere. About 1 foot high. Nut white, small.

Obs. Dr. Torrey, to whom I sent specimens, avers that this is not the S. pauciflora, of Pursh.

317. SPARGANIUM. *Nutt. Gen.* 731.

[Gr. *Sparganon*, a fillet, or bandage; from its riband-like leaves.]

MALE, *Ament* globose. *Cal.* 3 to 6 leaved. *Cor.* 0.
FEM. *Ament* globose. *Cal.* 3 to 6 leaved. *Cor.* 0. *Stigma* simple, or bifid. *Drupe* dry, 1 seeded

S. AMERICANUM? *Nutt.* Lower leaves carinate at base, as long as the stem; stigma simple, oblique.
Synon. S. simplex? *Willd. Ph. Muhl.* *Vulgo*—Bur-reed.
Fl. Middle of July, and after. *Fr. mat.* Middle of September, and after.
Hab. Sluggish rivulets, ditches, &c. frequent. 12 to 18 inches high: heads yellowish green.

318. TYPHA. *Nutt. Gen.* 730.

[Gr. *Tiphos*, a bog, or marsh; from its usual place of growth.]

Ament cylindric, dense. MALE, above. *Cal.* obsolete, 3 leaved. *Cor.* 0.
FEM. *Cal.* 0. *Cor.* 0. *Seed* 1, pedicellate, surrounded with a hairy *pappus*, at base.

T. LATIFOLIA. *Ell.* Leaves linear, flat; male and female aments approximate.
Vulgo—Cat-tail. Reed-mace. Cooper's Reed.
Fl. Latter end of June. *Fr. mat.* Beginning of September.
Hab. Pools, swampy springs, &c. frequent. 4 to 5 feet high: aments brown.

Obs. The leaves are used by coopers to secure the joints of casks, &c. from leaking. Poor people sometimes collect the pappus, or hairy involucels of the mature aments, for the purpose of filling beds; but, as Dr. W. P. C. Barton justly remarks, it is both unhealthy and unpleasant—and much inferior to straw, or even to clean oats chaff.

T. ANGUSTIFOLIA. *Ph.* Leaves linear, canaliculate; male and female aments remote.
Fl. Middle of June. *Fr. mat.* Last of August.
Hab. Ponds, and wet places: Unionville: rare. 3 to 5 feet high: aments brown.

Obs. This species is very rare in this vicinity. I am indebted for my Pennsylvania specimens to Dr. Seal,—who collected it in a pond near Unionville, about 8 miles from West-Chester. I have seen it frequently in New Jersey.

319. COMPTONIA. *Nutt. Gen.* 735.

[Dedicated to *Henry Compton*, Bishop of London; who was a collector of Plants.]

MALE, *ament* cylindric. *Cal.* a scale. *Cor.* 2 petalled? *Filaments* 3 or 4, bifurcate?
FEM. *ament* ovate. *Cal.* a scale. *Cor.* 6 petalled. *Styles* 2. *Nut* oval.

C. ASPLENIFOLIA. *Ell.* Leaves lance-linear-oblong, irregularly crenate-pinnatifid.
Synon. Liquidambar asplenifolia. *Marshall.* *Vulgo*—Sweet Fern.
Fl. Latter end of April. *Fr. mat.* Beginning of September.
Hab. Slaty hills: Barrens, abundant. About 2 feet high; bushy.

Obs. An aromatic little shrub, emitting a resinous odor when bruised. It is reputed astringent, and probably possesses some medicinal properties. The infusion is occasionally used, in popular practice, in mild dysenteric cases, and as a diet drink.

ORDER, TETRANDIA.

320. BOEHMERIA. *Nutt. Gen.* 740.

[In honor of *George Rudolph Boehmer;* a German Botanist.]

MALE. *Cal.* 4 parted. COR. 0. *Nectary* 0.
FEM. *Cal.* 0. *Cor.* 0. *Style* 1. *Seed* 1, roundish, compressed, marginate.

B. CYLINDRICA. *Ell.* Sub-dioicous; leaves opposite; male spikes glomerate, interrupted; female cylindric.
Synon. Urtica cylindrica. *Mx.* *Vulgo*—False Nettle.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab Moist, shaded grounds; Brandywine: frequent. About 2 feet high.

B. LATERIFLORA? *Ell.* Leaves alternate, on long petioles; flowers glomerate, lateral.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Woodlands, along Brandywine: not common. 1 to 2 feet high.

321. URTICA. *Nutt. Gen.* 741.

[Lat. *uro,* to burn, or sting, and *tactus,* the touch; from the effect of the plant, when touched. *De Theis.*]

MALE, *Cal.* 4 leaved. *Cor.* 0. *Nectary* central, mostly cyathiform.
FEM. *Cal.* 2 valved, persistent. *Cor.* 0. *Seed* 1, ovate, shining.

U. PUMILA. *Ell.* Triandrous, stem shining, sub-pellucid; leaves opposite; corymbs short.
Vulgo—Rich-weed. Smooth Nettle.
Fl. Latter end of July, and after. *Fr. mat.* Middle of September.
Hab. Moist, shaded spots: about houses; rivulets, &c. common. 9 to 18 inches high.

U. DIOICA. *Ell.* Dioicous? hispid; leaves opposite, lance-cordate, coarsely serrate: spikes clustered, long.
Vulgo—Common Stinging Nettle.
Fl. Middle of June, and after. *Fr. mat.* August, and after.
Hab. About houses; roadsides, &c. frequent. 1½ to 3 feet high.

Obs. A naturalized foreigner; well known to all who have ever handled it. It is so abundant about some houses as to be very troublesome.

U. PROCERA? *Ell.* Dioicous; leaves opposite, lance-ovate, serrate; petioles ciliate; spikes subramose.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Low, moist grounds: Patton's: frequent. 2 to 3 feet high: somewhat glabrous.

U. DIVARICATA. *Ell.* Leaves alternate, ovate, sub-glabrous; panicles axillary, divaricately branched.
Fl. Latter end of July, and after. *Fr. mat.* Last of September.
Hab. Moist, shaded grounds: along rivulets, &c. frequent. 2 to 3 feet high.

Obs. Nearly allied to the following; but smaller, and not so hispid.

U. CANADENSIS. *Ell.* Hispid; leaves alternate, cordate-ovate; panicles divaricately branched.
Fl. Beginning of August, and after. *Fr. mat.* Last of September.
Hab. Miry, shaded grounds: forks of Brandywine, &c. frequent. 3 to 6 feet high.

Obs. I have not yet made myself sufficiently familiar with this repulsive genus, to be *confident* that I have enumerated all our species,—or that I have determined them all correctly: but I incline to think the foregoing may be relied upon.

322. ALNUS. *Nutt. Gen.* 737.

[Obscure: See *De Theis.* "Vocatur ab *Amne,* quia in flumine alitur." *Boerh.*]

MALE, *Ament* with receptacles cuneiform, truncate, 3 flowered. *Cal.* a scale. *Cor.* 4 parted.
FEM. *Ament* sub-ovate. *Cal.* scales 2 flowered. *Cor.* 0. *Seed* compressed, ovate, naked.

A. SERRULATA. *Mx. Arb.* Leaves obovate, acuminate, doubly serrulate; stipules oval, obtuse.
Synon. Betula serrulata. *Mx. Fl. Am.* *Vulgo*—Common Alder. Candle Alder.
Fl. Latter end of March. *Fr. mat.* Middle of October.
Hab. Swamps; and along rivulets: common, 6 to 10 feet high.

Obs. This is one of our earliest flowering shrubs. The male aments are formed during the preceding autumn, and a few warm days in March are sufficient to develope them. This is sometimes called *Black Alder;* but that name properly belongs to the *Prinos verticillatus.*

323. MORUS. *Nutt. Gen.* 743.

[Gr. *Amauros*, dark; or from the Celtic, *Mor*, black; the color of the fruit. *De Theis.*]

Sometimes *Dioicous:* MALE, *Ament* loose. *Cal.* 4 parted. *Cor.* 0.
FEM. *Ament* dense. *Cal.* 4 leaved, becoming a *berry*. *Cor.* 0. *Styles* 2. *Seed* 1.

M. RUBRA. *Mx. Arb.* Dioicous; leaves cordate, or lobate, scabrous; female ament cylindric.
Vulgo—Red Mulberry.
Fl. Middle of May. *Fr. mat.* Latter end of June.
Hab. Rich woodlands: fence rows, &c. frequent. 15, to 20 or 30 feet high: fruit dark purple.

Obs. The fruit of this well known tree is much admired by some; though it is rarely cultivated for that object. The wood is remarkably durable, and valuable for posts, &c.

M. ALBA. *Ell.* Monoicous; leaves cordate, oblique at base, ovate, or lobate, glabrous.
Vulgo—White Mulberry.
Fl. Middle of May. *Fr. mat.* Latter end of June.
Hab. Fence-rows: Jos. Townsend's farm: not common. 15 to 20 feet high: fruit white.

Obs. This foreign tree occurs about some old settlements, where it was formerly introduced, with a view to raise Silk-worms: but the business has been abandoned for many years, in this vicinity. I have specimens, from near Birmingham Meeting-house, which fit Willdenow's description of *M. tatarica* precisely; which species, however, he seems to think is only a *variety* of the M. alba.

ORDER, PENTANDRIA.

324. XANTHIUM. *Nutt. Gen.* 704.

[Gr. *Xanthos*, yellow; a color said to be produced by the unripe fruit of the plant.]

MALE, *Cal.* many leaved, imbricate. *Cor.* 5 cleft, funnel-form. *Recept.* chaffy.
FEM. *Involucre* 2 leaved, 1 flowered. *Cor.* 0. *Drupe* dry, muricate, bifid. *Nut* 2 celled.

X. STRUMARIUM. *Ell.* Stem branched, unarmed; leaves cordate, rough; fruit elliptic, bristles hooked.
Vulgo—Clot-bur. Clot-weed. Lesser Burdock. Cockle-bur.
Fl. Latter end of August, and after. *Fr. mat.* Middle of October.
Hab. Farm yards, lanes, roadsides, &c. frequent. 1 to 3 feet high: flowers greenish.

Obs. This is an obnoxious weed—the burs often matting, and injuring the fleeces of sheep, &c. Mr. Nuttall says it is "indigenous to the remotest parts of upper Louisiana:" but it has very much the appearance of a naturalized stranger here. The X. *spinosum*, a still viler weed, has not reached this region yet. I have not met with it nearer than the District of Columbia.
With great deference to the superior judgment of those able botanists who have removed this, and the following genus, to *Syngenesia*, I cannot help thinking that Monoecia is the proper class for them.

325. AMBROSIA. *Nutt. Gen.* 703.

[A poetical name: *the food of the Gods;* but certainly indifferent food for *mortals.*]

MALE, in spikes. *Cal.* 1 leaved, many flowered. *Cor.* 1 petalled, funnel-form, 5 cleft. *Recept.* naked.
FEM. clustered. *Cal.* 1 leaved, entire, belly 5 toothed. *Cor.* 0. *Nut* from the indurated calyx, 1 seeded.

A. TRIFIDA. *Ell.* Hirsute; scabrous; leaves mostly opposite, deeply 3 lobed, serrate; fruit 6 toothed.
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Fence-rows; thickets, &c. frequent. 3, to 6 or 8 feet high: male spikes greenish yellow.

A. ARTEMISIFOLIA? *Ell.* Stem pilose; leaves bipinnatifid, upper ones pinnatifid; racemes in 3's, terminal.
Synon. A. absynthifolia? *Mx.* *Vulgo*—Bitter-weed. Rag-weed. Wild Wormwood. Hog-weed.
Fl. Latter end of August, and after. *Fr. mat.* Middle of October.
Hab. Pastures; stubble fields, &c. very common. 1, to 3 or 4 feet high.

Obs. This abundant, and worthless weed, I take to be the A. artemisifolia of the books; and yet the petioles are conspicuously *ciliate.* If we have the A. *elatior*, I have not yet distinguished it from this.

326. AMARANTHUS. *Nutt. Gen.* 746.

[Gr. *a*, not, *maraino*, to wither, and *Anthos*, a flower; the flowers remaining unchanged, in drying.]

MALE, *Cal.* 3 or 5 leaved, persistent, mostly colored. *Cor.* 0. *Stamens* 5, or 3.
FEM. *Cal.* as in the male. *Cor.* 0. *Styles* about 3. *Caps.* 1 celled, circumscissed. *Seed* 1.

A. ALBUS. *Ph.* Glomerules axillary, triandrous; leaves obovate, retuse, with a small bristle in the sinus.
Vulgo—White Amaranth. Careless.

Fl. Middle of August. *Fr. mat.* Last of September.
Hab. Gardens; barn-yards; Indian cornfields, &c: common. 1 to 3 feet high: plant pale green.

Obs. I have never had any doubts of this species; and yet our plant is usually very much *branched*. The stems break off near the ground in the beginning of winter, and the plants roll about before the winds.

A. HYBRIDUS. *Ell.* Racemes pentandrous, decompound, clustered, erect; leaves lance ovate.
Fl. Latter end of August. *Fr. mat.* Beginning of October.
Hab. Gardens; cultivated lots, &c. common. 2, to 4 or 5 feet high.

Obs. A homely, unwelcome weed, in our gardens, &c.—I think it probable we have some other species of this genus, which are not cultivated—though I have not ascertained them.

ORDER, HEXANDRIA.

327. ZIZANIA. *Nutt. Gen.* 747.
[An ancient Greek name, of obscure etymology.]

MALE, *Cal.* 0. *Cor.* glume 2 valved, awnless; sometimes intermixed with the female flowers.
FEM. *Cal.* 0. *Cor.* glume 2 valved, cucullate, awned. *Style* 2 parted. *Seed* 1, invested by the corolla.

Z. AQUATICA. *Ell.* Panicle pyramidal; male flowers below, spreading; female above, spiked; awns long.
Synon. Z. clavulosa. *Mx.* *Vulgo*—Wild Rice. Indian Rice. Water Oats. Reed.
Fl. Latter end of August. *Fr. mat.* Latter end of September.
Hab. Rivulet, near Marshall's Mill, on Brandywine: rare. 4 to 6 feet high.

Obs. The male flowers, and fruit, caducous: the pedicels of the female flowers enlarged, or clavate. I have only met with this plant in one spot, a few rods west of Marshall's Mill, south side of Brandywine.

ORDER, POLYANDRIA.

328. SAGITTARIA. *Nutt. Gen.* 750.
[Lat. *Sagitta*, an arrow; the leaves resembling the head of an arrow.]

MALE, *Cal.* 3 leaved. *Cor.* 3 petalled. *Stamens* numerous, 20 to 30.
FEM. *Cal.* 3 leaved. *Cor.* 3 petalled. *Capsules* many, aggregate, 1 seeded.

S. SAGITTIFOLIA. *Ell.* Leaves ovate, sagittate, lobes lance-ovate; bractes acuminate, glabrous.
Synon. S. latifolia. *Willd.* *Vulgo*—Arrow-head.
Fl. Beginning of August, and after. *Fr. mat.* Beginning of October.
Hab. Swamps; and spring heads: frequent. Scape 9 to 18 inches high: flowers white.

Obs. This is a large-leaved, glabrous species; and, I think, quite distinct from the following. I have found a number of fleshy *tubers* attached to the roots,—some of them the size of a goose-egg,—which were mild to the taste, and I have no doubt would be esculent, and nutritious, if properly cooked. Hogs are very fond of rooting after those tubers, in the spring of the year.

S. PUBESCENS. *Ell.* Leaves lance-oblong, lobes lanceolate; bractes ovate, obtuse, pubescent.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Swamps; ditches, &c. frequent. Scape 6 to 12 inches high: flowers white.

Obs. Mr. Nuttall thinks this is nothing more than a *variety* of the preceding: if so, it is certainly a strongly marked one. The plant is constantly smaller,—the leaves narrower, with long, narrow, lanceolate lobes—the bractes roundish-ovate, and, with the scape, quite pubescent; whereas the bractes of the other have a long acumination, and are glabrous.

329. EUPHORBIA. *Nutt. Gen.* 773.
[Dedicated to *Euphorbus*; an ancient Greek Physician.]

Involucre caliciform, segments often petaloid: MALE florets attached to the involucre.
FEM. central, solitary, pedicellate. *Cal.* 0. *Cor.* 0. *Styles* 3, bifid. *Caps.* 3 grained.

E. HYPERICIFOLIA. *Ell.* Glabrous; divaricately branching; leaves oval-oblong, serrate, sub-falcate.
Vulgo—Eye-bright. Spurge.
Fl. Latter end of July, and after. *Fr. mat.* Beginning of October.
Hab. Fields; roadsides, &c. common. 9 to 18 inches high: flowers white, small.

Obs. It seems difficult to determine to which *Class* and *Order*, of the Sexual System, this genus most appropriately belongs. I have, however, concluded to arrange it here, for the present.

E. DEPRESSA. *Ell.* Stem prostrate, branching, hairy; leaves oval, serrulate, base unequal.
Synon. E. thymifolia? *Ph.* E. maculata. *Fl. Phil.* *Vulgo*—Spotted Spurge.
Fl. Middle of July till September. *Fr. mat.* Beginning of October.
Hab. Indian Corn-fields; pastures, &c. frequent. 6 to 12 inches long: flowers white, minute.

E. COROLLATA. *Ell.* Erect; leaves alternate, oblong, obtuse; umbel 5 cleft, 3 cleft, and dichotomous.
Fl. Beginning of August. *Fr. mat.* Middle of October.
Hab. Fence-rows, &c. frequent. 1 to 3 feet high: flowers white, conspicuous.

Obs. In addition to the foregoing, I have some specimens which I collected in the beginning of July, 1819, along a shaded rivulet, on the barrens, N. W. of S. Stringfellow's; and which, in the opinion of Dr. Torrey, come nearer to the E. *sylvatica*, of Europe, than to any other. It is possible they may have strayed from a garden,—although found in a very retired spot. I have only met with the plant in that place. It is from 2 to 3 feet high, nearly glabrous, leaves scattered, oblong, or oblanceolate, entire, about 1 inch wide, and 4 inches in length—the involucels diphyllous, subcordate, large.

330. ARUM. *Nutt. Gen.* 762.

[An ancient name; of obscure etymology.]

Spathe cucullate. *Spadix* naked at summit. MALE, above. *Stam.* naked, crowded.
FEM. below, on the same spadix. *Cal.* 0. *Cor.* 0. *Berry* 1 or many seeded.

A. DRACONTIUM. *Ell.* Stemless; leaves pedate; spadix subulate, longer than the spathe.
Vulgo—Green Dragon. Dragon-root.
Fl. Latter end of May. *Fr. mat.* Middle of September.
Hab. Rich, moist woodlands: Brandywine: frequent. 12 to 18 inches high.

A. TRIPHYLLUM. *Ell.* Often dioicous; sub-caulescent; leaves ternate; spadix clavate.
Vulgo—Indian Turnip. Wake-robin.
Fl. Middle of May. *Fr. mat.* Last of August.
Hab. Rich, shaded grounds: fence-rows, &c. common. 1 to 2 feet high.

Obs. The tuberous root, which is considerably acrid, is a popular remedy in coughs, and pulmonary complaints. It is prepared by boiling it in milk. A species of *Sago* has been obtained from it, as we learn from *Barton's Journal, Vol. 2. part 1. p. 84.*

331. QUERCUS. *Nutt. Gen.* 751.

[Etymology obscure: *De Theis* says, from the Celtic, *Quer*, handsome, and *Cuez*, tree.]

MALE, *Ament* naked, linear. *Cal.* slightly 5 cleft. *Cor.* 0. *Stamens* 4 to 10.
FEM. *Cal.* 1 leaved, entire, scabrous. *Cor.* 0. *Nut.* coriaceous, seated in the calyx.

a. *Leaves lobed.* † *Lobes setaceously mucronate.*

Q. TINCTORIA. *Mx. Arb.* Leaves obovate, pubescent beneath; cup scutellate; nut depressed-globose.
Synon. Q. nigra. *Marsh.* *Vulgo*—Black Oak. Dyer's Oak. Quercitron.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Rich, upland woods: very common. 60 to 90 feet high.

Obs. Though the *wood* of this is not so durable as some other species, it is a very valuable tree. Besides rails, fuel, &c. it is much used for making shingles. The *bark* is used in tanning; and forms an article of extensive commerce, for the purpose of dying yellow, under the name of *Quercitron*. It is sometimes employed for medical purposes, as an astringent, and tonic.

Q. RUBRA. *Mx. Arb.* Leaves obtusely sinuate, lobes often trifid; cup scutellate; nut subovate.
Synon. Q. rubra montana. *Marsh.* *Vulgo*—Upland Red Oak. Spanish Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Hilly woodlands: frequent. 50 to 70 feet high.

Obs. The *bark* of this species is much esteemed for tanning. The *wood* is not very valuable,—being frequently unsound at heart. It is distinct from the true *Spanish Oak;* but is generally known here by that name.

Q. PALUSTRIS. *Mx. Arb.* Leaves deeply sinuate, glabrous; cup scutellate; nut subglobose.
Synon. Q. rubra ramosissima. *Marsh.* *Vulgo*—Pin Oak. Water Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Wet, low grounds: along rivulets: frequent. 40 to 60 feet high.

Obs. The *wood* of this is very firm; and is much used by mechanics.

Q. BANISTERI. *Mx. Arb.* Leaves obovate-cuneiform, 3 or 5 lobed; cup sub-turbinate; nut sub-globose.
Synon. Q. ilicifolia. *Ell. Eaton,* &c. *Vulgo*—Black Scrub Oak. Bear Oak. Barren Oak.
Fl. Beginning of May. *Fr. mat.* Latter end of September.
Hab. Dry, sterile hills: Barrens: frequent. 4 to 6 feet high, much branched.

Obs. A worthless little species; which I take to be the Q. *nigra pumila,* of Marshall.

†† *Lobes not mucronate.*

Q. OBTUSILOBA. *Mx. Arb.* Leaves cuneate at base, lobes obtuse, dilated; cup hemispheric; nut oval.
Synon. Q. alba minor. *Marsh.* Q. stellata. *Eaton.* *Vulgo*—Barren White Oak. Post Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Sterile hills: Barren ridge: frequent. 20 to 40 feet high.

Obs. The *wood* of this is very durable; and is much valued for posts, &c. It is also esteemed for fuel.

Q. ALBA. *Mx. Arb.* Leaves pinnatifid-sinuate, lobes oblong, obtuse; cup craterate; nut ovate.
Vulgo—White Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Woodlands: every where common. 60 to 100 feet high.

Obs. This is one of our finest, and most valuable forest trees; and often grows to an immense size. The *timber* is firm and durable—serving for many important purposes in the mechanic arts. The keels of some of our largest national ships were procured from trees of this species, in this vicinity. The *bark* is astringent, and tonic; and is frequently employed in the treatment of diseases. The *acorns* afford a nutritious food for hogs.

b. *Leaves coarsely dentate—not lobed.*

Q. BICOLOR. *Ph.* Leaves oblong-obovate, white-tomentose beneath; cup hemispheric; nut oblong-ovate.
Synon. Q. prinus discolor. *Mx. Arb.* *Vulgo*—Swamp White Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Low grounds: along creeks: frequent. 40 to 60 feet high.

Obs. There are, apparently, some *varieties* of this tree. It is not held in such high estimation as some of the other species.

Q. MONTANA. *Ph.* Leaves broad-obovate, downy beneath; cup turbinate; nut oblong.
Synon. Q. prinus monticola. *Mx. Arb.* *Vulgo*—Chesnut Oak. Rock Chesnut Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Hilly, rocky woodlands: frequent. 50 to 70 feet high.

Obs. The *timber* and *bark* of this species are much esteemed.

Q. CHINQUAPIN. *Ph.* Leaves obovate, and oblong, glabrous; cup hemispheric; nut ovate.
Synon. Q. prinus chincapin. *Mx. Arb.* Q. prinoides. *Willd. Eaton.* *Vulgo*—Dwarf Chesnut Oak.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Dry, sterile hills: Barrens: frequent. 2 to 6 feet high.

Obs. I am sensible that my catalogue of our Oaks cannot be complete; but the foregoing are all that I have ascertained with any degree of satisfaction.
☞ The Q. PHELLOS I have not found nearer to this place than the alluvial lands, in the neighborhood of the river Delaware. Indeed, I have never observed it, growing native, in any other kind of soil.

332. JUGLANS. *Nutt. Gen.* 760.

[Lat. formed from *Jovis Glans,* the nut of Jove; on account of its excellence.]

MALE, *Ament* imbricate. *Cal.* a scale. *Cor.* 5 or 6 parted. *Stamens* 18 to 36.
FEM. *Cal.* superior, 4 cleft. *Cor.* 4 parted. *Styles* 1 or 2. *Drupe* coriaceous, or spongy. *Nut* rugose.

J. NIGRA. *Mx. Arb.* Leaflets lance-ovate, serrate, narrowed above; fruit globose, scabrous-punctate.
Vulgo—Black Walnut.
Fl. Middle of May. *Fr. mat.* Beginning of October.
Hab. Rich woodlands; fence-rows, &c. common. 30 to 60 feet high.

Obs. The *wood* of this tree is valuable, and much used by cabinet makers, &c. The *fruit* is esteemed; and the spongy *pericarp* is often employed as a domestic dye stuff. The tree exerts an unfriendly influence upon many other plants, growing in its immediate vicinity.

J. CINEREA. *Ell.* Leaflets lanceolate, serrulate, pubescent; petioles villous; fruit oblong-ovate.
Synon. J. cathartica. *Mx. Arb.* *Vulgo*—White Walnut. Butter-nut.

Fl. Beginning of May. *Fr. mat.* Last of September.
Hab. Rich, bottom lands: Brandywine: frequent. 15 to 30 feet high.

Obs. This is generally a small, branching tree, and the wood is not highly valued. The extract of the *bark*, used in the form of pills, is a convenient and deservedly popular cathartic. The *young fruit*, which is viscid and villous, is prepared, by our housewives, as a condiment, or *pickle*, which is much esteemed. It is in the proper state for this purpose, about the last of June, or beginning of July. The kernel of the ripe fruit is rarely eaten,—being very oily and rancid.

333. CARYA. *Nutt. Gen.* 761.

[Gr. *Karya*, the ancient name of the *Juglans regia*, or Walnut tree. *Nutt.*]

MALE, *Ament* imbricate, compound. *Cal.* a scale, 3 parted. *Cor.* 0. *Stamens* 4 to 8.
FEM. *Cal.* superior, 4 cleft. *Cor.* 0. *Style* 0. *Stigma* 4 lobed. *Pericarp* 4 valved. *Nut* 4 angled, smooth.

C. SULCATA. *Ell.* Leaflets about 9, oblanceolate; fruit 4 angled; nut long-mucronate.
Synon. Juglans laciniosa. *Mx. arb.* J. mucronata. *Mx. Fl. Am.* *Vulgo*—Thick Shell-bark Hickory.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Rich woodlands: frequent. 60 to 80 feet high.

Obs. The wood of most of the species of Hickory is highly valuable for fuel,—though not very durable when exposed to the weather, and much subject to be worm-eaten. The whole genus is believed to be peculiar to this continent.

C. SQUAMOSA. *Eat.* Leaflets about 5, long-petiolate, lance-oblong; fruit depressed-globose; nut compressed.
Synon. C. alba. *Ell.* Juglans squamosa. *Mx. arb.* *Vulgo*—Shell-bark Hickory.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Rich bottom land; creek banks, &c. frequent. 60 to 80 feet high.

Obs. This tree is well known, on account of its *nuts*, which are so highly esteemed for the table. They are much superior to those of any other species, in this region.

C. TOMENTOSA. *Ell.* Leaflets about 9, oblanceolate; aments tomentose; nut thick-shelled, hard.
Synon. Juglans tomentosa. *Mx. Arb.* J. alba. *Willd. Muhl.* *Vulgo*—White-heart Hickory.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Woodlands: common. 60 to 80 feet high.

Obs. The white hickory is considered as affording the best fuel; as well as being the toughest, and most suitable for axe-handles, &c.

C. AMARA. *Ell.* Leaflets about 9, lance-oblong, glabrous; fruit subglobose; nut mucronate.
Synon. Juglans amara. *Mx. Arb.* *Vulgo*—Bitter Nut. Swamp Hickory.
Fl. Middle of May. *Fr. mat.* Middle of October.
Hab. Woodlands; and low grounds: frequent. 40 to 60 feet high.

Obs. The *nuts* of this species are bitter and astringent.

C. PORCINA. *Ell.* Leaflets about 7, lanceolate, glabrous; fruit pyriform, or globose.
Synon. Juglans porcina. *Mx. Arb.* *Vulgo*—Broom Hickory. Pig-nut Hickory.
Fl. Beginning of May. *Fr. mat.* Middle of October.
Hab. Woodlands: frequent. 40 to 60 feet high.

Obs. The young saplings of this species were much used, formerly, for making splint-brooms,—the wood being very tough.

334. FAGUS. *Nutt. Gen.* 753.

[Lat.—originally from the Gr. *phago*, to eat; the fruit being esculent.]

MALE, *Ament* roundish. *Cal.* 5 cleft, campanulate. *Cor.* 0. *Stamens* about 12.
FEM. *Cal.* 4 toothed, setose. *Cor.* 0. *Nuts* 2, triquetrous, included in the muricate, 4 cleft calyx.

F. SYLVATICA. *Ell.* Leaves lance-oval, acuminate, slightly dentate, glabrous, margin ciliate.
Synon. F. sylvestris, *Mx. Arb.* F. sylvatica atro-punicea. *Marsh.* *Vulgo*—Beech tree. White Beech.
Fl. Beginning of May. *Fr. mat.* Last of September.
Hab. Moist, low grounds: woodlands: common. 30 to 50 feet high.

Obs. As far as I have observed, I think Mr. Nuttall is correct in the suggestion that this species is *dioicous*. The leaves in *Michaux's plate* do not exactly correspond with our plant. With us, the leaves, though tapering, are not *acute*, at base,—but are somewhat oblique, and slightly cordate; and on petioles scarcely one fourth of an inch long. In other respects they accord with the plate. The *wood* is very close-grained; and much used for making plane-stocks, shoemaker's lasts, &c. The nuts afford food for swine.

335. CASTANEA. *Nutt. Gen.* 754.

[*Castanea*, a city of Thessaly; where the tree grew in great abundance.]

MALE, *Ament* naked, linear, long, interruptedly glomerate. *Cal.* 0. *Cor.* 5 or 6 parted. *Stam.* 5 to 20
FEM. *Cal.* 5 or 6 leaved, muricate. *Cor.* 0. *Stigmas* pencil-form. *Nuts* 3, in the echinate calyx.

C. VESCA *Mx. Arb.* Leaves glabrous, lance-oblong, sinuate-serrate; serratures mucronate.
Synon. Fagus-Castanea dentata. *Marsh.* *Vulgo*—Chesnut tree.
Fl. Latter end of June. *Fr. mat.* Beginning of October.
Hab. Hilly, gravelly lands; woodlands: common. 60 to 90 feet high.

Obs. Our American Chesnut is generally considered to be only a *variety* of the European,—though it is made a distinct species, under the name of C. *americana*, by some botanists. It seems to flourish most naturally in a dry, gravelly, or slaty, and thin soil. The *wood* is very durable, and highly valued for making fences. It is also extensively converted into charcoal, by our blacksmiths; but is not esteemed for ordinary fuel. The treat which the *nuts* afford, for our tables, is familiarly known to every one.

☞ The C. PUMILA, or *Chinquapin*, grows in the South Western extremity of this County,—and is very abundant in the neighboring districts, still further to the South and West; but I believe it is not to be found, native, within 15 or 20 miles of this Borough.

336. BETULA. *Nutt. Gen.* 755.

[Etymology obscure: *Boerh.* says, "a *batuendo*, id est, cædendo, ex hac arbore fasces conficiebant Romani qui Magistratibus solebant præferri."]

MALE, *Ament* imbricate, scales peltate, 3 flowered. *Cal.* a scale. *Cor.* 0. *Stam.* 10 to 12.
FEM. *Ament* imbricate. *Cal.* a scale, 2 flowered. *Cor.* 0. *Seed* 1, alate.

B. RUBRA. *Mx. Arb.* Leaves subrhomboid-ovate, acute, doubly serrate, base entire.
Synon. B. nigra *Willd. Ph. Ell.* &c. B. lanulosa. *Mx. Fl. Am.* *Vulgo*—Red Birch. Black Birch.
Fl. Middle of April. *Fr. mat.*
Hab. Low grounds: Black Horse Run, Strasburgh road: rare. 40 to 60 feet high.

Obs. This tree is remarkable for its outer bark peeling off spontaneously in large, thin, smooth scales, or laminæ. I have not observed it any where in this vicinity, except in the above locality.

B. LENTA. *Mx. Arb.* Leaves cordate-ovate, acuminate, acutely serrate.
Synon. B. Carpinifolia. *Mx. Fl. Am.* *Vulgo*—Sweet Birch. Cherry Birch. Mahogany Birch.
Fl. Middle of April. *Fr. mat.*
Hab. Barrens: rivulet below Geo. Vernon's. rare. 30 to 60 feet high.

Obs. The bark and young twigs, are pleasantly aromatic,—somewhat resembling, in taste, the Gaultheria procumbens—and are sometimes added as an ingredient in domestic brewings of beer, in diet drinks, &c.

337. CARPINUS. *Nutt. Gen.* 756.

[Celtic, *Car*, wood, and *pin*, head; *i. e.* wood suitable for making yokes for cattle. *De Theis.*]

MALE, *Ament* imbricate. *Cal.* a scale, ciliate. *Cor.* 0. *Stamens* about 10.
FEM. *Ament* lax, finally racemose. *Cal.* a scale, 2 flowered. *Cor.* trifid. *Nut* ovate, nerved.

C. AMERICANA. *Mx. Arb.* Leaves oblong-ovate; scales of the female ament enlarging, foliaceous.
Synon. C. betulus virginiana. *Marsh.* *Vulgo*—Common Hornbeam. Water Beech.
Fl. Middle of April. *Fr. mat.* Beginning of October.
Hab. Banks of rivulets; low grounds, &c. common. 10 to 20 feet high.

338. OSTRYA. *Nutt. Gen.* 757.

[An ancient Gr. name: *Ostreon*, a shell, or scale; from the resemblance of its capsules. *De Theis.*]

MALE, *Ament* imbricate. *Cal.* a scale. *Cor.* 0. *Filaments* branching.
FEM. *Ament* naked. *Cal.* 0. *Cor.* 0. *Capsules* inflated, imbricate, 1 seeded.

O. VIRGINICA. *Ell.* Leaves ovate-oblong; cones oblong-ovate; capsules hairy at base.
Synon. Carpinus ostrya. *Mx. Arb. Marsh. &c.* *Vulgo*—Hop Hornbeam. Iron wood.
Fl. Latter end of April. *Fr. mat.* Beginning of October.
Hab. Woodlands; forks of Brandywine: not common. 20 to 40 feet high.

Obs. This tree is pretty frequent in the woodlands near the forks of Brandywine; but I have rarely met with it elsewhere. The mature cones have a striking resemblance to those of the common *Hop*. They are described by Pursh, Elliott, and others, as being *erect*, and generally *in pairs;* but in all my specimens (and I have a number,) they are constantly solitary, and rather pendulous—nearly as represented in Michaux's plate.

339. CORYLUS. *Nutt. Gen.* 752.

[Gr. *Korys*, a helmet, or cap; the fruit being invested by the calyx. *De Theis.*]

MALE, *Ament* imbricate. *Cal.* a scale. *Cor.* 0. *Stamens* about 8.
FEM. *Cal.* 2 parted, lacerate. *Cor* 0. *Styles* 2. *Nut* ovate, embraced by the persistent calyx.

C. AMERICANA. *Ell.* Leaves cordate, acuminate; calyx of the fruit large, border dilated, many cleft.
Vulgo—Hazel-nut.
Fl. Last of March. *Fr. mat.* Middle of September.
Hab. Borders of thickets: R. Strodes; Barren ridge, &c. frequent. 4 to 6 feet high.

Obs. This shrub is well known for its agreeable fruit.

340. PLATANUS. *Nutt. Gen.* 758.

[Gr. *Platys*, broad; in reference to its broad leaves,—or wide spreading branches.]

MALE, *Ament* globose. *Cal.* 0. *Cor.* scarcely manifest. *Anthers* growing round the filament.
FEM. *Ament* globose. *Cal.* many leaved. *Cor.* 0. *Caps.* 1 seeded, mucronate, pappose at base.

P. OCCIDENTALIS. *Mx. Arb.* Leaves roundish, angular, sublobate, dentate; branches whitish.
Vulgo—Button-wood. Sycamore. Plane tree.
Fl. Last of April. *Fr. mat.* Last of October.
Hab. Creek banks: fence-rows, &c. frequent. 60 to 100 feet high.

Obs. This stately tree is easily recognized; yet the botanical characters of the fructification are very obscure. The timber is often sawed into scantling, and used for various purposes,—but it is not durable when exposed to the weather. The spreading branches afford a fine shade, in summer, and the tree is often planted in front of farm-houses, for that object.

341. LIQUIDAMBAR. *Nutt. Gen.* 759.

[A name given on account of the aromatic gum which distils from this tree.]

MALE, *Ament* conic, with a 4 leaved involucre. *Cal.* 0. *Cor.* 0. *Stamens* numerous.
FEM. *Ament* globose, involucre 4 leaved. *Cal.* 1 leaved, urceolate. *Cor.* 0. *Caps.* 1 celled, many seeded.

L. STYRACIFLUA. *Mx. Arb.* Leaves palmate-lobed; lobes acuminate, serrate.
Vulgo—Sweet Gum. Bilsted.
Fl. Beginning of May. *Fr. mat.*
Hab. Low, clay grounds: Wilmington road: not common. 40 to 60 feet high.

Obs. The leaves when slightly bruised are remarkably fragrant. This tree is not strictly a plant of this immediate vicinity. It grows pretty abundantly near the Wilmington road, 10 or 12 miles south of West-Chester,—and may be seen also along the Philadelphia road, near the 3 mile stone; but I have never met with it hereabouts. Indeed, as far as I have observed, it is exclusively limited to that tract of the middle states which is marked as *alluvial deposite*, in Mr. Maclure's Geological map of the United States. In the lower parts of New-Jersey, it is very abundant. Whether it is as much circumscribed, in its range, in other portions of the Union, as it seems to be in this region, I am not informed.

ORDER, MONADELPHIA.

342. PINUS. *Nutt. Gen.* 765.

[An ancient name, of obscure derivation.]

MALE, *Cal.* 4 leaved. *Cor.* 0. *Stamens* numerous; *anthers* naked.
FEM. *Cal.* a strobilus, or cone; scales 2 flowered. *Cor.* 0. *Pistil* 1. *Nut* alate.

§ 1. *Leaves solitary, distinct at base.*

P. CANADENSIS. *Ell.* Leaves flat, denticulate, sub-distichous; cones ovate, terminal, small.
Synon. Abies canadensis. *Mx. Arb.* *Vulgo*—Spruce Pine. Hemlock Spruce.
Fl. Beginning of May. *Fr. mat.*
Hab. Rocky hills, along Brandywine: not common. 30 to 50 feet high.

Obs. I have only met with this along the Brandywine, at Jos. Painter's, and from Sugar's ford to Downingtown. The timber is not valuable,—although frequently found in lumber yards, in form of boards, and scantling. The *bark* is said to answer for tanning leather; and Marshall informs us that the Aborigines used it to dye their splints, for baskets, of a red color.

§ 2. *Leaves in 3's, the bases bound together by sheaths.*

P. RIGIDA. *Mx. Arb.* Sheaths of the leaves short; cones ovate; spines of the scales reflexed.
Vulgo—Pitch Pine. Yellow Pine.
Fl. Beginning of May. *Fr. mat.*
Hab. Brandywine hills, near Jos. Hawley's: not common. 20 to 40 feet high.

§3. *Leaves in 5's, the bases bound together by sheaths.*

P. STROBUS. *Mx. Arb.* Leaves slender; sheaths short; cones pendant, cylindric, scales lax.
Vulgo—White Pine. Weymouth Pine. New England Pine.
Fl. Beginning of May. *Fr. mat.*
Hab. Woodlands: fields, &c. rare. 30 to 60 feet high.

Obs. This is a handsome tree; and, when met with, is generally transplanted about houses, as an ornament. The value of its timber, in supplying us with boards, &c. is well known.
It is possible that there may be one or two other species, which I have overlooked; but the Pines of this vicinity are few in number, and of very moderate growth.

343. ACALYPHA. *Nutt. Gen.* 768.
[Gr. *a*, not, *Kalos*, handsome, or agreeable, and *Aphe*, touch; disagreeable to handle. *De Theis.*]

MALE, *Cal.* 3 or 4 leaved. *Cor.* 0. *Stamens* 8 to 16.
FEM. *Cal.* 3 leaved. *Cor.* 0. *Styles* 3, bifid. *Caps.* 3 celled, 3 seeded.

A. VIRGINICA. *Ell.* Leaves lance-oblong, remotely and obtusely serrate, petioles short.
Vulgo—Three-seeded Mercury.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Pastures; fence-rows, &c. frequent. 6 to 18 inches high.

A. CAROLINIANA. *Ph.* Leaves rhomb-ovate, serrate, entire at base, petioles long.
Fl. Latter end of July, and after. *Fr. mat.* Beginning of October.
Hab. Gardens; fields; woods, &c. common. 9 to 18 inches high.

CLASS XX. DIOECIA.

ORDER, DIANDRIA.

344. VALLISNERIA. *Nutt. Gen.* 779.
[In honor of *Anthony Vallisneri;* an Italian Botanist.]

MALE, *Spathe* ovate, 2 parted. *Spadix* covered with florets. *Cal.* 3 parted. *Stam.* 2 and 6.
FEM. *Spathe* bifid, 1 flowered. *Cal.* superior, 3 parted. *Cor.* 3 petalled. *Caps.* valveless. *Seeds* numerous.

V. AMERICANA. *Nutt.* Leaves radical, linear, obtuse; male peduncles very short, female long.
Vulgo—Eel-grass. Tape-grass. Duck-grass. Channel-weed.
Fl. Beginning of August. *Fr. mat.*
Hab. Slow flowing waters, submersed: Brandywine: frequent. Flowers whitish.

Obs. I have not yet detected the male flowers. The peduncles of the *female* are from 1 to 2 feet long, slender, and, so far as I have observed, rather *flexuose* than spiral. The leaves with us, are from 1 to 2 feet long, and numerous,—affording retreats for Eels,—whence one of its common names. It is said that this plant (the *seeds?*) constitutes the principal food of the celebrated *canvass-back Duck;* and is supposed to impart to the flesh of that bird its peculiarly delicate flavor.

345. SALIX. *Nutt. Gen.* 780.
[Celtic, *Sal*, near, and *Lis*, water; from its place of growth. *De Theis.* Or from the Lat. *salio*, to leap, or spring up—"quia hæc arbor quasi *saltando*, id est, tam cito crescit." *Boerh.*]

MALE, *Ament* cylindric. *Cal.* a scale. *Cor.* 0. *Stam.* 1 to 6, with nectariferous glands at base.
FEM. *Ament* cylindric. *Cal.* a scale. *Cor.* 0. *Style* bifid. *Caps.* 1 celled, 2 valved. *Seeds* woolly.

§1. *Leaves entire, or obsoletely serrate.*

S. MUHLENBERGIANA? *Willd.* Leaves lanceolate, acutish, hoary-pubescent, rugose-veined beneath.
Synon. S. tristis? *Muhl.* S. incana? *Mx.* *Vulgo*—Dwarf Willow. Speckled Willow.
Fl. Latter end of April. *Fr. mat.* Latter end of May.
Hab. Borders of thickets: Patton's; R. Strodes, &c. frequent. 3 to 5 feet high.

Obs. The leaves, in my specimens, are rather oblanceolate. I have others which approach this species, with the leaves broader, and lance-obovate,—collected near the Bath.

§2. *Leaves acutely serrate.*

S. GRISEA. *Willd.* Leaves lanceolate, acuminate, serrulate, glabrous above, silky beneath.
Fl. Latter end of April. *Fr. mat.* Latter end of May.
Hab. Low grounds, in thickets: Patton's, &c. frequent. 5 to 8 feet high.

S. FALCATA. *Ph.* Leaves long, lance-linear, subfalcate, acute at base, glabrous.
Fl. Beginning of May. *Fr. mat.*
Hab. Banks of streams: Strode's dam, &c. frequent. 8 to 15 feet high: branches slender.

S. NIGRA. *Willd.* Leaves lanceolate, acuminate, glabrous, petioles pubescent; germs pedicellate.
Vulgo—Black Willow.
Fl. Beginning of May. *Fr. mat.*
Hab. Banks of creeks: Brandywine: frequent. 15 to 20 feet high: branches brittle at base.

Obs. I am sensible that there must probably be some other native species of Willow in this vicinity: but I have not yet ascertained their character sufficiently to insert them.

ORDER, TETRANDRIA.

346. VISCUM. *Nutt. Gen.* 786.
[An ancient Latin name: so called, says *Boerh.* "quia ejus fructus glutine est plenus."]

MALE, *Cal.* 4 parted. *Cor.* 0. *Filaments* 0. *Anthers* adnate to the calyx.
FEM. *Cal.* superior, 4 leaved. *Cor.* 0. *Style* 0. *Berry* 1 seeded. *Seed* cordate

V. VERTICILLATUM. *Ell.* Branches opposite; leaves cuneate-obovate, 3 nerved; spikes axillary.
Synon. V. flavescens. *Ph.* V. album? *Muhl.* *Vulgo*—Misseltoe.
Fl. *Fr. mat.*
Hab. Parasitic, chiefly on the Sour Gum (*Nyssa*): very rare. Stem 9 to 18 inches high: berries white.

Obs. This singular little evergreen was formerly to be met with in several places, in this vicinity; but I do not now know of one. The last one within my knowledge, was procured by some credulous persons as a sort of *amulet*, or remedy against Epilepsy. My specimens are from Maryland, and New Jersey,—where I have seen it in great abundance,—and invariably upon the Sour Gum (*Nyssa sylvatica*, of this catalogue). I have not met with the plant in flower; but collected it in fruit, in the month of January.

ORDER, PENTANDRIA.

☞ For HUMULUS LUPULUS, or *Hop*, which belongs to this Order,—and is undoubtedly indigenous along the Brandywine,—See Appendix of Cultivated Plants.

ORDER, HEXANDRIA.

347. SMILAX. *Nutt. Gen.* 793.
[Gr. *Smile*, a scraper, or scratcher; in reference to its prickles. *De Theis.*]

MALE, *Cal.* 6 leaved. *Cor.* 0. *Anthers* adnate to the filaments.
FEM. *Cal.* 6 leaved. *Cor.* 0. *Style* minute. *Stigmas* 3. *Berry* 3 celled, 1, 2, or 3 seeded.

§1. *Stem shrubby, terete, and prickly.*

S. ROTUNDIFOLIA. *Ell.* Leaves round-ovate, briefly acuminate, slightly cordate, 5 nerved.
Vulgo—Green Briar. Rough Bind-weed.
Fl. Beginning of June. *Fr. mat.* Middle of October.
Hab. Moist thickets; and woodlands: common. 10 to 50 or more feet high: berries dark blue.

Obs. This slender, but rugged bramble, sometimes climbs to a great height among the branches of trees, in thickets; and is very annoying to wood-men, when at work in such places.

S. CADUCA. *Ell.* Leaves ovate, mucronate, 5 nerved; prickles few on the branches.
Fl. Middle of May. *Fr. mat.* Beginning of October.
Hab. Thickets; Barrens, &c. frequent. 6 to 10 feet high: berries dark blue.

§2. *Stem herbaceous, unarmed.*

S. HERBACEA. *Ell.* Stem angular, erect, simple; leaves cordate-ovate; umbels on long peduncles.
Vulgo—Carrion flower. Stinking Bind-weed.
Fl. Middle of May, and after. *Fr. mat.* Middle of September.
Hab. Borders of woods; fence-rows, &c. frequent. 2 to 4 feet high: berries black.

Obs. This plant is noted for the abominable foetor of its flowers,—resembling that of carrion so strongly as to attract the flies. The offensive odor, however, is completely dissipated as the flower dries in an Herbarium.

348. DIOSCOREA. *Nutt. Gen.* 794.
[Dedicated to the ancient Greek Naturalist, *Dioscorides.*]

MALE, *Cal.* 6 parted, segments lanceolate, spreading. *Cor.* 0.
FEM *Cal.* 6 parted. *Cor.* 0. *Styles* 3. *Caps.* 3 celled, 3 angled, compressed. *Seeds* marginate.

D. VILLOSA. *Ell.* Leaves cordate, acuminate, pubescent beneath; male flowers paniculate, female racemose.
Synon. D. paniculata. *Mx.* *Vulgo*—Wild Yam.
Fl. Middle of June, and after. *Fr. mat.* Beginning of October.
Hab. Fence-rows; thickets, &c. frequent. Climbing, 6 to 10, or 12 feet: capsules winged.

ORDER, OCTANDRIA.

349. POPULUS. *Nutt. Gen.* 796.
[Lat. *Populus*, the people—*Tree of the people;* the public walks, in Rome, being shaded by it. *De Theis.*]

MALE, *Ament* cylindric. *Cal.* a lacerate scale. *Cor.* turbinate, oblique, entire.
FEM. Flower as in the male. *Stigma* 4 or 6 lobed. *Caps.* 2 celled. *Seeds* beset with long wool.

P. TREMULOIDES. *Mx. Arb.* Leaves suborbicular, abruptly acuminate, dentate-serrulate, glabrous.
Synon. P. trepida. *Willd. Ph.* *Vulgo*—Quaking Asp. American Aspen.
Fl. Middle of April. *Fr. mat.*
Hab. Low grounds: Ed Darlington's; Jas. Gibbons's: not common. 20 to 40 feet high.

Obs. A handsome tree. The bark is a popular and pretty valuable tonic.

P. GRANDIDENTATA. *Mx. Arb.* Leaves round-ovate, acute, coarsely and sinuately dentate.
Synon. P. trepida, grandidentata. *Muhl.* *Vulgo*—Large Aspen. Black Poplar.
Fl. Beginning of April. *Fr. mat.*
Hab. Woodlands: roadside, North of Wm. Hawley's: rare. 30 to 40 feet high

Obs. This tree was formerly pretty frequent hereabouts, and was often transplanted in front of houses, for shade: but I now know of only one, (a female,) which grows in a field by the roadside, North of Wm. Hawley's.

P. HETEROPHYLLA? *Ph.* Leaves ovate, slightly cordate, rather obtuse, uncinate-dentate.
Fl. Latter end of April. *Fr. mat.*
Hab. Woods, west of Brandywine, near the Red Lion Tavern: rare. 30 to 50 feet high.

Obs. I have the authority of Dr. Baldwin for this species; but it does not exactly agree with any plate, or description, which I have seen.
I have also specimens from the Barrens, below Geo. Vernon's, with leaves very large, and perfectly cordate, denticulate, tomentose beneath, and having four little cup-like glands at the base. The petioles are not hirsute; but the plant appears, to me, to come nearer the description of P. *candicans*, than any other. These are all the native poplars that I have met with.

ORDER, POLYANDRIA.

350. MENISPERMUM. *Nutt. Gen.* 804.
[Gr. *Mene*, the moon, and *Sperma*, seed; from the lunate, or crescent form of its seeds.]

MALE, *Cal.* sub-bibracteate, about 6 leaved, caducous. *Cor.* petals 6 to 9, minute. *Stam.* 12 to 24.
FEM. Flower as in the male. *Germs* and *Styles* 3 to 6. *Drupes* like berries, lunate, 1 seeded.

M. CANADENSE. *Ell.* Scandent; leaves subcordate, angled, peltate, petiole inserted near the base.
Vulgo—Moon seed.
Fl. Beginning of June. *Fr. mat.*
Hab. Rich woodlands; and thickets: frequent. 8 to 15 feet long: flowers greenish yellow.

ORDER, MONADELPHIA.

351. JUNIPERUS. *Nutt. Gen.* 806.

[Celtic, *Jeneprus*, rough, or harsh. *De Theis*:—Or, according to *Boerh.* "a *junior* et *pario*, quia hæc arbor novos fructus parit, dum aliæ baccæ maturescunt."]

MALE, *Ament* ovate. *Cal.* a scale. *Cor.* 0. *Stamens* 3.

FEM. *Cal.* 3 parted, adnate to the germ. *Cor.* petals 3? *Styles* 3. *Berry* tuberculate, 1 or 2 seeded.

J. VIRGINIANA. *Mx. Arb.* Leaves ternate, or opposite and decussate, spreading, or appressed and imbricate.

Vulgo—Cedar tree. Red Cedar.

Fl. Beginning of April. *Fr. mat.* Middle of September.

Hab. Fence-rows; woodlands, &c. frequent. 15 to 30 feet high: berries dark blue.

Obs. The wood of this tree is much esteemed for its durability; but it is not often to be met with, at present, of a size to give it any great value. It is said to be pernicious to young Thorn hedges, when growing in their immediate vicinity.

Mr. Elliott's description of the leaves does not agree with that of Willdenow, and others. He says the younger leaves are expanded, and the old ones appressed, and imbricate;—whereas Willdenow describes the younger ones as being imbricate, and the old ones expanded. As far as I have observed, I think the truth lies *between* them. The leaves of one year old are mostly appressed and imbricate; but those which are older, and those upon the young growing shoots, I find to be spreading. There is a pretty distinct *variety* of this tree, noticed by Michaux the elder, in which *all* the leaves are expanding, long, and very acute. They are also frequently *ternate* in this variety: but in the other and most common sort, they appear to be *quadrifariously* arranged—or rather, they are opposite, and decussating. This is particularly the case in the small branches of one year old; which are rendered distinctly 4 angled, by the short, appressed, imbricate leaves.

APPENDIX.

A Catalogue of the Plants

WHICH ARE CULTIVATED

IN THE VICINITY OF WEST-CHESTER, PENN.

ON ACCOUNT OF THEIR USEFUL PROPERTIES.

CLASS II. DIANDRIA.*

ORDER, MONOGYNIA.

1. SALVIA. *Genera Plantarum.* 50.

[Lat. *salvare*, to save; from its supposed medical powers.]

CAL. tubular, bilabiate. COR. ringent. *Stam.* 2 fertile; the filaments transversely pedicellate.

S. OFFICINALIS. *Wild.* Leaves lance-ovate, crenulate; verticils few flowered; calyx mucronate.

Vulgo—Sage. Garden Sage.

Fl. Middle of June, and after. *Fr. mat.* Last of July.

Hab. Gardens. Perennial. 1 to 2 feet high: flowers blue. *Native* of Southern Europe.

Obs. Used as a condiment, in domestic economy. The infusion makes a good gargle, and is otherwise moderately medicinal; but the plant is by no means entitled to the character which, it would appear by the following lines, it once possessed—

"Cur moriatur homo, cui *Salvia* crescit in horto?
Contra vim mortis, non est medicamen in hortis.
Salvia salvatrix, naturæ conciliatrix.
Salvia cum Ruta faciunt tibi pocula tuta."

CLASS III. TRIANDRIA.

ORDER, DIGYNIA.

☞ For AGROSTIS, or *Herd's Grass*,—which is not much esteemed by our farmers, and very little cultivated, here—See *page* 10, *of this Catalogue:* and for a good description, See *Torrey's Flora.*

A. HERMAPHRODITE. a. *Calyx* 1 *flowered. Flowers in Spikes.*

2. PHLEUM. *Gen. Pl.* 109.

[An ancient name, derived from the Greek: meaning obscure.]

CAL. 2 valved; valves sessile, compressed, linear, carinate, truncate, mucronate. COR. included.

* I propose, in this Appendix, to omit all plants which are merely ornamental, or objects of taste,—and to notice those only which are cultivated amongst us, at the present day, for the sake of some valuable property;—either affording articles of food, or raiment,—or otherwise conducing to health and comfort. Of these, there are none, within my knowledge, belonging to the class MONANDRIA.

P. PRATENSE. *Muhl.* Culm terete, erect; spike cylindric, very long; calyx dorsally ciliate.
Vulgo—Timothy. Timothy Grass. Cat's-tail Grass.
Fl. Latter end of June. *Fr. mat.* Latter end of July.
Hab. Fields, and meadows. Perennial. 2 to 4 feet high. *Nat.* Europe.

Obs. This valuable grass has become extensively naturalized; but it is also a primary object of culture with our best farmers. Mixed with red clover, (Trifolium pratense,) it constitutes, perhaps, the most substantial hay we have. It is considered severe and exhausting to the soil, where it predominates. The seed is usually sown in autumn, among, and immediately after, wheat and rye—though it answers very well when sown in the spring.

3. HORDEUM. *Gen. Pl.* 129.

[An ancient Latin name, of obscure derivation.]

CAL. lateral, 2 valved; florets in 3's, the lateral ones often sterile. COR. 2 valved, outer one awned.

H. VULGARE. *Willd.* Florets all perfect, awned, arranged in double rows, erect.
Vulgo—Common Barley. Four-rowed Barley.
Fl. Beginning of June. *Fr. mat.* Last of June.
Hab. Fields. Annual. 2 to 3 feet high. *Nat.* Sicily.

Obs. This is extensively cultivated in this vicinity, and almost exclusively for the purpose of making Beer;—being rarely used for bread, or even fed to stock. The seed is sown the latter end of March.
There is a *variety* of this, (H. *cæleste.*) called *Naked Barley*, which has been occasionally tried, by some of our farmers; but it does not succeed well, in this region.

H. DISTICHON. *Willd.* Lateral florets imperfect, awnless; seeds angular, imbricate:
Vulgo—Two-rowed Barley.
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab. Fields. Annual. 2 to 3 feet high. *Nat.* Tartary.

Obs. It is doubted by some whether this is more than a *variety* of the preceding. It is pretty extensively cultivated of late, on account of its standing better than the other, and being later in ripening. The grain, also, is heavier, and commands a better price. It is preferred for *hulling*, and making *Pearl Barley.* Seed sown the latter end of March, or beginning of April.

b. *Calyx, 2 or 3 flowered. Flowers in Spikes.*

4. SECALE. *Gen. Pl.* 127.

[Etymology obscure: *Boerh.* says "a *secare*, quia seminibus maturis hæc planta secatur."]

CAL. 2 valved; valves opposite, linear, small. COR. 2 valved, outer one ending in a long awn.

S. CEREALE. *Willd.* Glumes scabrous-ciliate; awns retrorsely scabrous.
Vulgo—Rye.
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab. Fields. Annual. 4 to 6 feet high. *Nat.* Crete.

Obs. Cultivated to a considerable extent; but not so much as Wheat, in this vicinity—being far inferior for bread. Large quantities of the grain are used in *distillation*,—and where the process is conducted with integrity, and competent skill, a spirit of good quality may be obtained: But, unfortunately, the country is inundated with a vile, fetid liquor, under the name of *Whiskey*, procured from a mixture of Rye and Indian Corn, or Buckwheat, and these frequently in a damaged state;—which poisonous liquor, by reason of its cheapness, and intoxicating character, has become the cause of more evil to the community than any other agent. The seed of Rye is sown in all the month of October.

5. TRITICUM. *Gen. Pl.* 130.

[Lat. *Tritum*, rubbed, or ground; its grain being so prepared, for food.]

CAL. 2 valved, about 3 flowered. COR. outer valve obtuse, with a point; inner flat.

T. HYBERNUM. *Willd.* Calyx-glumes 4 flowered, ventricose, smooth, imbricate, submutic.
Vulgo—Wheat. Winter Wheat.
Fl. Middle of June. *Fr. mat.* Middle of July.
Hab. Fields. Annual. 2 to 4, or 5 feet high. *Native* country uncertain.

Obs. Several *varieties* of this most valuable plant are cultivated here, both awned, and awnless. The *white*, awnless variety, is preferred by some, as making superior flour, and resisting the ravages of the *Hessian Fly* most effectually: whilst others give the preference to an awned variety, called *Red-chaff Bearded* wheat. The seed is sown from the latter end of September till the middle of October. Late sowing has been found to obviate, in some degree, the depredations of the Fly.
T. *æstivum*, Summer Wheat, or Spring Wheat, is rarely cultivated here.

c. *Calyx many flowered.* † *Flowers in loose Panicles.*

6. AVENA. *Gen. Pl.* 122.

[Lat. *aveo,* to desire: "quia equi quando avenam sentiunt, illam comedere desiderant." *Boerh.*]

CAL. 2 valved, membranaceous. COR. outer valve with a dorsal, contorted awn.

A. SATIVA. *Willd.* Calyx 2 seeded; seeds smooth, one of them awned.
Vulgo—Oats. Common Oats.
Fl. Middle of July. *Fr. mat.* Beginning of August.
Hab Fields. Annual. 2 to 4 feet high. *Nat.* Island of Juan Fernandez.

Obs This grain is cultivated chiefly as food for horses. It succeeds better than Barley in a poor soil; and is therefore frequently sown when the farmer would have preferred Barley, had his land been good. The seed is usually sown the latter end of April.

†† *Flowers in clustered Panicles; or Spikes.*

7. DACTYLIS. *Gen. Pl.* 117.

[Gr. *Daktylos,* a finger; in reference to the form of its spikes.]

CAL. 2 valved, compressed, carinate, subawned, one smaller. COR. 2 valved, awnless.

D. GLOMERATA. *Muhl.* Scabrous; leaves lanceolate, glaucous; panicle secund, glomerate.
Vulgo—Orchard Grass. Cock's-foot Grass.
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab Fields; Orchards, &c. Perennial. 2 to 3 feet high. *Nat.* Europe.

Obs. Our farmers are much divided in opinion on the merits of this grass. Some condemn it as unworthy of culture, either for pasture or hay; whilst others set a high value on it, for both. I think, myself, it is inferior to Timothy, for *hay;* yet it has the advantage of the latter, in being mature at the same time the *Clover* is, with which they generally grow. It is also less exhausting to the soil. But its great value is as a *pasture,* when sown sufficiently thick,—which it rarely is. It is of quick growth, and is speedily reproduced after being cut, or eaten down—so much so, that we may almost literally apply to it the words of *Virgil*—

"Et quantum longis carpent armenta diebus
Exigua tantum gelidus ros nocte reponet."—*Georg. lib.* 2. 201.

This grass also possesses the additional advantage of thriving well in the *shade;* and answers a very good purpose in orchards, &c. The seed is usually sown in autumn, immediately after Wheat, or Rye.

B. POLYGAMOUS. a. *Calyx* 1 *flowered. Flowers mostly in Panicles.*

8 SORGHUM. *Cyclopæd.*

[An ancient, barbarous name; borrowed from the East.]

Flowers by pairs: MALE, or NEUT. pedicellate, smaller. *Cal.* 2 valved. *Cor.* 2 valved, awnless.
HERMAPH. sessile. *Cal.* 2 valved. *Cor.* 2 valved, inner valve cleft, and awned. *Nect.* villous.

S. SACCHARATUM. *Cyclop.* Panicle erect, subverticillate, spreading; seeds oval; glumes hairy.
Synon. Holcus saccharatus. *Willd.* *Vulgo*—Broom Corn.
Fl. Middle of August. *Fr. mat.* Beginning of October.
Hab. Fields; and gardens. Annual. 6 to 8 feet high: flowers greenish, seeds yellowish. *Nat.* India.

Obs. This is cultivated chiefly for the sake of its panicles; which are made into brooms. Some persons carry on the business extensively.

S. CERNUUM. *Cyclop.* Panicle compact, oval, finally nodding; seeds globose; glumes villous.
Synon. Holcus cernuus. *Willd.* *Vulgo*—Guinea Corn. Indian Millet.
Fl. Latter end of August. *Fr. mat.* Middle of October.
Hab. Fields; and gardens. Annual. 5 to 7 feet high: seeds white. *Nat.* India?

Obs. This is but rarely cultivated here—and chiefly as feed for poultry.
S. BICOLOR, commonly called *Chocolate-corn,* is sometimes cultivated, as a matter of curiosity, and has been used as a sort of substitute for chocolate,—which, like *rye-coffee,* may answer for those who cannot obtain better; but it is not likely to come into general use.
☞ A variety of the HOLCUS SPICATUS, of Willd. (*Pennisetum typhoideum,* Persoon,) known by the common name of *Egyptian Millet,* was introduced into this neighborhood lately, through the politeness of John S. Skinner, Esquire, the intelligent and patriotic Editor of the *American Farmer;*—but our seasons proved too short for the plant to mature its seeds—otherwise it promised to be an interesting acquisition. I raised a few plants of it, which produced spikes for 5 inches in circumference, and nearly 2 feet in length. For a good account of it, See *American Farmer, Vol. 6. p.* 116—117.

b. *Calyx* 2 *flowered.* *Flowers in Spikes.*

9. SETARIA. *Torrey. Flora.* 1. *p.* 152.

[Lat. *Seta,* a bristle; in reference to its bristly involucels.]

Involucel of 2 or more bristles: florets sessile. MALE, or NEUT. COR. valves scariose. HERMAPH. *Cal* 2 valved, unequal. *Cor.* 2 valved, valves cartilaginous.

S. GERMANICA. Spike compound, compact; spikelets glomerate; rachis hirsute; bristles short.
Synon. Panicum germanicum. *Willd. Muhl.* &c. *Vulgo*—Common Millet. Bengal Grass.
Fl. Middle of July. *Fr. mat.* Middle of August.
Hab. Fields. Annual. 2 to 4 feet high. *Nat.* Southern Europe.

Obs. This plant was introduced here a few years ago, and attracted considerable notice, as a grass likely to be valuable, in affording a supply of hay, in seasons of scarcity. In this point of view it is, doubtless, worthy of notice, as it makes good hay, if secured in good order: but it takes damage very readily, in dull weather. The grain is not considered of much importance, by our farmers; and the culture of the plant is rather neglected, at present. The seed is usually sown about the middle of May. This is supposed, by some, to be only a *variety* of either S. *italica,* or S. *viridis.*

CLASS IV. TETRANDRIA.

ORDER, MONOGYNIA.

10. DIPSACUS. *Gen. Pl.* 148.

[Gr. *Dipsao,* to be thirsty; the stem leaves holding water at their junction.]

Flowers in an ovate head: *involucre* many leaved. CAL. 1 leaved. COR. 4 lobed. *Recept.* chaffy; chaff rigid.

D. FULLONUM. *Sm. Fl. Brit.* Aculeate; stem leaves connate, serrate; chaff recurved.
Vulgo—Teasel. Fuller's Teasel.
Fl. Middle of July *Fr. mat.* Beginning of September.
Hab. Small Lots. Biennial. 3 to 5 feet high: flowers pale purple. *Nat.* Southern Europe.

Obs. This has been occasionally cultivated by some of our Cloth Manufacturers; and I believe succeeded very well.

11. RUBIA. *Gen. Pl.* 163.

[Lat. *Ruber,* red; the color produced by its roots.]

CAL. 4 toothed. COR monopetalous, campanulate, 4 or 5 cleft. BERRIES twin, smooth.

R. TINCTORUM. *Willd.* Stem weak, angled, aculeate; leaves mostly in 6's, lanceolate.
Vulgo—Madder. Dyer's Madder.
Fl. Beginning of July. *Fr. mat.*
Hab. Gardens, chiefly. Perennial. 2 to 3 feet long; flowers yellowish. *Nat.* Italy, &c.

Obs. The flowers are often 5 and 6-androus. This plant is cultivated, on a small scale, by some families, as a domestic dye-stuff; and appears to succeed very well, where proper care is taken.

CLASS V. PENTANDRIA.

ORDER, MONOGYNIA.

FLOWERS INFERIOR. a. *Corolla monopetalous.* † *Seeds naked.*

12. SYMPHYTUM. *Gen. Pl.* 245.

[Gr. *Symphysis,* union; from its supposed virtues in uniting, or healing wounds.]

CAL. 5 parted. COR. *tube* short, *limb* tubular-ventricose, *throat* closed with subulate rays.

S. OFFICINALE. *Willd.* Leaves lance-ovate, decurrent, rugose; racemes hispid.
Vulgo—Comfrey Garden Comfrey.
Fl. Beginning of June, till September. *Fr. mat.* August, and after.
Hab. Gardens, &c. Perrenial. 2 to 4 feet high: flowers yellowish white. *Nat.* Europe.

Obs. The root is mucilaginous, and esteemed, in popular practice, as a pectoral medicine

†† *Seeds covered.*

13. SPIGELIA. *Gen. Pl.* 272.

[In honor of *Adrian Spigel*, or *Spigelius*; a Botanist of Brussels.]

CAL. 5 parted. COR. funnel-form, border equally 5 cleft. CAPS. twin, 2 celled, 4 valved, many seeded.

S. MARILANDICA *Willd.* Stem 4 angled; leaves all opposite, sessile, lance-ovate, entire.
Vulgo—Carolina Pink. Pink-root.
Fl. Latter end of June. *Fr. mat.*
Hab. Gardens. Perennial. 9 to 18 inches high: flowers red. *Nat.* Maryland, &c.

Obs. The root of this ornamental plant is deservedly popular, as a vermifuge; and is occasionally cultivated for that object, by some of our more curious gardeners.

14. CONVOLVULUS. *Gen. Pl.* 287.

[Lat. *convolvo*, to wrap, intwine, or wind about; descriptive of the genus.]

CAL. 5 parted. COR. campanulate, plicate. *Stigmas* 2, oblong, or globose. CAPS. 2 or 3 celled.

C. BATATAS. *Willd.* Root tuberous; stem creeping; leaves hastate-cordate, 5 nerved.
Vulgo—Sweet Potato. Carolina Potato.
Fl. *Fr. mat.*
Hab. Gardens, and lots. Perennial. 4 to 8, or 10 feet long *Nat.* Both Indies.

Obs. This favorite vegetable is pretty extensively cultivated here, and succeeds well,—though I think the roots, raised here, are rather inferior in quality, to those raised in the sandy soil of New-Jersey. It is propagated by cuttings of the roots; which are planted the beginning of *May*. It never *flowers*, in this region, so far as I can learn.

15. NICOTIANA. *Gen. Pl.* 334.

[Dedicated to *John Nicot*, a French Ambassador; who first brought it into France.]

CAL. urceolate, 5 cleft. COR. funnel-form, limb plicate, 5 cleft. *Stam.* inclined. CAPS. 2 celled.

N. TABACUM. *Willd* Leaves lance-ovate, sessile, decurrent; corolla-segments acute.
Vulgo—Tobacco. Common Tobacco.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Gardens, and lots. Annual. 3 to 5 feet high: flowers pale reddish purple. *Nat.* America.

Obs. This plant is occasionally cultivated, on a small scale, by some tobacco-chewing farmers. It possesses powerful medical properties: but, unfortunately, it may be remarked, almost without a figure, in relation to many of our people, that what ought to be "their extreme medicine, is become their daily bread"! The seed is sown about the middle of April, in beds; and the young plants subsequently removed into distinct hills.

16. SOLANUM. *Gen. Pl.* 337.

[Perhaps from the Lat. *solari*, to solace, or assuage; from the properties of some species.]

CAL. 5 cleft. COR. sub-rotate, plicate. *Anthers* partly united, opening at point by double pores.

S. TUBEROSUM. *Willd.* Roots with tubers; leaves interruptedly pinnate, leaflets entire.
Vulgo—Potato. Round Potato. Irish Potato.
Fl. Latter end of June, and after. *Fr. mat.* Last of August.
Hab. Gardens, and fields. Perennial? 2 to 3 feet high: flowers bluish white. *Nat.* South America.

Obs. This most important plant is cultivated extensively; as it well deserves to be. It is usually propagated by cuttings of the tubers; but they are liable to degenerate, by long continued culture in the same soil—and ought then to be replaced by *seedlings*, carefully selected. The roots are planted in all the months of April, May and June. My friend, the late Dr. Baldwin informed me he saw this plant growing *native*, near *Monte video*, on the river *La Plata*, in the year 1815.

S. LYCOPERSICUM. *Willd.* Leaves pseudo-pinnate, incised; fruit glabrous, torulose.
Vulgo—Tomata, or Tomatoes. Love-apple.
Fl. Latter end of June, and after. *Fr. mat.* Middle of August, and after.
Hab. Gardens. Annual. 2 to 3 feet high; flowers yellow; fruit red. *Nat.* South America.

Obs. We have a *variety*, with the fruit smaller, and *not* torulose. This plant is cultivated for the sake of the mature fruit, which is of a sprightly acid taste,—and much admired by many, as a sauce, with meats, &c.

S. MELONGENA. *Willd.* Leaves ovate, wavy, tomentose; calyx mostly unarmed; flowers nodding.
Vulgo—Egg Plant.
Fl. Latter end of June, and after. *Fr. mat.* Latter end of September.
Hab. Gardens. Annual. 1 to 2 feet high: flowers purplish. *Nat.* America, Asia, Africa.

Obs. This is sometimes cultivated for its large fruit, which is served up at table with various dressings. The plant is rather delicate for our climate, and is not much attended to.

17. CAPSICUM. *Gen. Pl.* 338.

[Gr. *kapto*, to bite,—or Lat. *Capsa*, a box; from the properties, or structure, of the fruit.]

CAL. 5 cleft. COR. rotate, 5 cleft. *Anthers* connivent. BERRY without pulp, inflated.

C. ANNUUM. *Willd.* Stem herbaceous; peduncles solitary.
Vulgo—Red Pepper. Cayenne Pepper.
Fl. Latter end of July, and after. *Fr. mat.* Latter end of September.
Hab. Gardens. Annual. 12 to 18 inches high: flowers white, fruit red. *Nat.* South America.

Obs. There are several *varieties* of this plant cultivated here. The mature fruit is a powerful stimulus—used as a condiment with food, and as a rubefacient, &c. in medicine. The green fruit of the *thick-rind* varieties makes an excellent pickle.

b. *Corolla pentapetalous.*

18. VITIS. *Gen. Pl.* 396.

[Obscure: *Boerh.* says, "a *vieo*, flecto, quia vitis capreoli apprehendunt plantas vicinas."]

CAL. 5 toothed, minute. COR. petals cohering at apex, coming off below. BERRY globose, 5 seeded.

V. VINIFERA. *Willd.* Leaves sinuate-lobed, naked, or tomentose.
Vulgo—Wine Grape. English Grape, &c.
Fl. Beginning of June. *Fr. mat.* Middle of August, and after.
Hab. Gardens, &c. Perennial. 10 to 50 feet long: flowers yellowish green. *Nat.* Europe, Asia, Africa.

Obs. There are several sorts of foreign grape cultivated here, on a small scale—the fruit differing materially in color and taste,—which are supposed, by the Botanists, to be nothing more than *varieties* of this one species, produced by long culture, &c.

In addition to these, we cultivate some *native varieties*, or hybrids, of this delicious fruit, which are highly esteemed: such as the *Bland Grape*, *Schuylkill Grape*, &c. The public attention has latterly been much turned to this subject; and we may hope, ere long, to see some flourishing Vineyards in this vicinity. I am inclined to think the south sides of our slaty hills, north of West-Chester, if properly prepared, would be well adapted to this culture; and my opinion is fortified by the fact of the luxuriant growth of our native vines, in that soil.

ORDER, DIGYNIA.

A. FLOWERS SUPERIOR: UMBELLATE. a. *Involucrate, and Involucellate.*

DAUCUS CAROTA. *Sm. Fl. Brit.* *Vulgo*—Carrot. Garden Carrot.

☞ For a notice of this plant, which is believed to be only a *variety* of our *Wild Carrot*,—*See page 33, of this catalogue.* It is very little cultivated in this vicinity:—perhaps not so much as it deserves to be,—as the root is known to afford a valuable food for Stock. It is not generally esteemed at table, with us.

19. LIGUSTICUM. *Gen. Pl.* 478.

[So named, from *Liguria*; the native Country of the plant.]

Involucre and *Involucels* many leaved. COR. petals involute, entire *Fruit* oblong, ribs 5, acute.

L. LEVISTICUM. *Willd.* Leaves manyfold; leaflets cuneate at base, incised above.
Vulgo—Lovage.
Fl. Middle of June. *Fr. mat.* Middle of August.
Hab. Gardens. Perennial. 4 to 6 feet high: flowers yellowish. *Nat.* Appenines of Liguria.

Obs. This strong-scented plant is to be found occasionally in the gardens—being esteemed somewhat medicinal in relieving flatulencies, &c. but it is very little attended to.

20. CORIANDRUM. *Gen. Pl.* 468.

[Gr. *Koris*, a bug; the bruised leaves having the odor of a bed-bug.]

Involucre 1 leaved. *Involucels* halved. COR. petals inflex-emarginate. *Fruit* sub-globose.

C. SATIVUM. *Sm. Fl. Brit.* Glabrous; leaves compound; seeds hemispherical.
Vulgo—Coriander.

Fl. Latter end of June. *Fr. mat.* Last of August.
Hab. Gardens. Annual. 1 to 2 feet high: flowers white. *Nat.* Italy.

Obs. Cultivated for the aromatic seeds; which are used in domestic economy.

b. *Involucre and Involucels, mostly* 0.

21. PASTINACA. *Gen. Pl.* 494.

[Supposed from the Lat. *pasco*, to feed; in reference to its nourishing qualities.]

Fruit oval, apex emarginate, dorsally and flatly compressed, marginate.

P. SATIVA. *Sm. Fl. Brit.* Root fusiform; leaves simply pinnate, glabrous, or pubescent beneath.
Vulgo—Parsnep. Garden Parsnep.
Fl. Last of June, and after. *Fr. mat.* Last of August, and after.
Hab. Gardens, and lots. Biennial. 4 to 5 feet high: flowers yellow. *Nat.* Southern Europe.

Obs. Cultivated for its highly nutritious, and agreeable root. This plant has strayed from the gardens, in many places, and almost become naturalized. Seeds planted the beginning of April.

22. ANETHUM. *Gen. Pl.* 496.

[Gr. *ano thein*, to run up; alluding to its quick, or straight growth.]

Fruit ovate, subcompressed, 5 ribbed, or striate. *Petals* involute, entire.

A. FŒNICULUM. *Sm. Fl. Brit.* Fruit gibbous; leaves tripinnate, leaflets setaceous, long.
Vulgo—Fennel. Garden Fennel.
Fl. Middle of July *Fr. mat.* Middle of September.
Hab. Gardens. Perennial. 4 to 5 feet high: flowers yellow. *Nat.* Europe.

Obs. The whole plant is highly aromatic. Cultivated chiefly for its seeds; which are used in domestic economy,—and sometimes *smoked*, like tobacco, as a remedy for colic.

23. APIUM. *Gen. Pl.* 499.

[Etymology obscure: perhaps from the Lat. *Apes*, bees; those insects being fond of it: "vel ab *Apice*, quia veteres inde coronas conficiebant ad caput ornandum." *Boerh.*]

Fruit ovate; ribs 5, small, a little prominent. *Petals* equal, inflexed. *Involucre* 1 leaved, or 0.

A. PETROSELINUM. *Willd.* Stem striate; stem leaves linear; involucre minute.
Vulgo—Parsley.
Fl. Latter end of June. *Fr. mat.* Latter end of August.
Hab. Gardens. Biennial. 2 to 4 feet high: flowers white. *Nat.* Sardinia.

Obs. The *leaves* are used, chiefly as a pot-herb, in soups, &c. The *root* is a popular diuretic.

A. GRAVEOLENS. *Willd.* Stem channelled; stem leaves cuneiform.
Vulgo—Celery.
Fl. Middle of July. *Fr. mat.* Beginning of September.
Hab. Gardens. Biennial. 2 to 3 feet high: flowers white. *Nat.* Europe.

Obs. Much cultivated for the sake of the long, succulent, spicy petioles of the lower leaves; which are rendered white, and tender, by covering them with earth, while the plant is growing.

B. FLOWERS INCOMPLETE.

24. CHENOPODIUM. *Gen. Pl.* 435.

[Gr. *Chen, chenos*, a goose, and *Pous, podos*, a foot; from a fancied resemblance in its leaves.]

CAL. inferior, 5 parted, 5 angled. COR. 0. *Seed* 1, lenticular, covered by the closing calyx.

C. ANTHELMINTICUM. *Ell.* Leaves lance-oblong, sinuate-dentate; racemes long, leafless.
Vulgo—Worm-seed. Jerusalem Oak.
Fl. Last of July, and after. *Fr. mat.* Beginning of October.
Hab. Gardens. Perennial. 3 to 5 feet high. *Nat.* America?

Obs. An active vermifuge; and cultivated by some persons for that object.

25. BETA. *Gen. Pl.* 436.

[Celtic, *Bett*, red. *De Theis.* Or from its fruit resembling the Greek letter *B* (*Beta*).]

CAL. 5 leaved. COR. 0. *Seed* 1, reniform, within the carnose base of the calyx.

B. VULGARIS. *Willd.* Lower leaves ovate; flowers clustered; calyx leaves dentate at base.
Vulgo—Beet. Garden Beet. Red Beet.
Fl. Middle of July. *Fr. mat.* Middle of September.
Hab. Gardens, and lots. Biennial. 2 to 4 feet high. *Nat.* Maritime parts of Southern Europe.

Obs. Very generally cultivated, for its fine esculent *root*, of which there are several varieties. The seeds are planted the beginning of April.—and later for winter use.

B. CICLA. *Willd.* Radical leaves petiolate, cauline sessile; flowers in threes; lateral spikes long.
Vulgo—Mangel wurtzel. Scarcity root. White Beet.
Fl. Latter end of July. *Fr. mat.* Latter end of September.
Hab. Gardens, and fields. Biennial. 3 to 5 feet high. *Nat.* Portugal.

Obs. This large-rooted species is but partially cultivated here; and not much esteemed for the table, though it is unquestionably a valuable article of food for stock—especially milk cows—in the winter season; and is very productive,—as has been signally demonstrated by that intelligent and indefatigable promoter of the interests of Agriculture, *John Hare Powel*, Esquire. See *Memoirs of the Penn. Agric. Society.* Our farmers, however, will not generally attend to the culture of *Roots*, to any great extent, while they can raise good crops of that admirable grain, the Indian Corn (*Zea mays*). The seeds of this Beet are planted in the beginning of May.

ORDER, PENTAGYNIA.

26. LINUM. *Gen. Pl.* 528.
[Gr. *Linon*,—or Celtic, *Lin*; the name for flax, or thread, in those languages.]

CAL. 5 parted, persistent. COR. petals 5, unguiculate. CAPS. globose, 10 valved, 10 celled. *Seeds* solitary.

L. USITATISSIMUM. *Willd.* Stem subsolitary; leaves lanceolate; petals crenate; capsule mucronate.
Vulgo—Common Flax.
Fl. Middle of June, and after. *Fr. mat.* Middle of July.
Hab. Fields. Annual. 2 to 3 feet high. flowers blue. *Native* country uncertain.

Obs. The seed of this most important plant is usually sown the last of March, or beginning of April. It is not extensively cultivated here, of late years. Our farmers think it a crop which is not very profitable, and that it impoverishes the soil: they therefore prefer to raise other plants, and to purchase fabrics of *Cotton* with the produce. It appears that in the time of *Virgil* it was deemed injurious to land,—as he says,

"Urit enim *Lini* campum seges, urit avenæ."—*Georg.* I. 71.

The seeds, in addition to their value in yielding oil, afford one of the best mucilaginous drinks, for coughs, and pectoral affections.

CLASS VI. HEXANDRIA.

ORDER, MONOGYNIA.

a. *Flowers spathaceous.*

27. ALLIUM. *Gen. Pl.* 557.
[Obscure: *De Theis* says, from the Celtic, *All*,—which signifies hot, acrid, burning.]

Spathe many flowered. *Umbel* clustered. COR. 6 parted, spreading. CAPS. superior, 3 celled, 3 valved.

A. PORRUM. *Willd.* Stem with flat leaves; umbel capsule-bearing; stamens tricuspidate.
Vulgo—Leek.
Fl. Middle of July. *Fr. mat.* Last of August.
Hab. Gardens. Perennial. *Nat.* Switzerland. A kitchen herb, but little cultivated here.

A. SATIVUM. *Willd.* Stem flat-leaved, bulb-bearing; bulb compound; stamens tricuspidate.
Vulgo—English Garlic.
Fl. Latter end of July. *Fr. mat.* Beginning of September.
Hab. Gardens. Perennial. 1 to 2 feet high: flowers whitish. *Nat.* Sicily.

Obs. Esteemed medicinal, as a vermifuge, &c. and cultivated chiefly for that object.

A. CEPA. *Willd.* Scape naked, ventricose below, longer than the terete leaves.
Vulgo—Onion. Garden Onion.
Fl. Latter end of July. *Fr. mat.* Beginning of September.
Hab. Gardens. Perennial. 2 to 3 feet high: flowers purplish. *Native* country uncertain.

Obs. Extensively cultivated as an article of diet. The expressed juice is a popular remedy for cynanche trachealis, or croup.

A. SCHŒNOPRASUM. *Willd.* Scape naked, equalling the terete, filiform leaves.
Vulgo—Chives, or Cives.
Fl. Latter end of July. *Fr. mat.* Beginning of September.
Hab. Gardens. Perennial. 6 to 9 inches high: flowers purple. *Nat.* Siberia, &c.

Obs. Cultivated as a kitchen herb; and often cut up, and fed to young poultry, especially turkies,—under the impression that it is a salutary, medicinal kind of diet.

b. *Flowers naked.*

28. ASPARAGUS *Gen. Pl.* 573.

[Gr. *Asparagos*, a turion, or young shoot; characteristic of the plant.]

COR. inferior, 6 parted, erect; the 3 inner segments reflexed at apex. BERRY 3 celled, many seeded.

A. OFFICINALIS. *Willd.* Stem herbaceous, terete, unarmed, paniculate; leaves setaceous, soft.
Vulgo—Common Asparagus. *Sparrow-grass.*
Fl. Middle of June, and after. *Fr. mat.* Last of September.
Hab. Gardens. Perennial. 3 to 5 feet high: flowers greenish yellow. *Nat.* Europe.

Obs. The young shoots afford a favorite vegetable dish, in the spring of the year. A strong and peculiar odor is imparted to the urinary secretion, by eating them.

CLASS VII. HEPTANDRIA.

ORDER, MONOGYNIA.

29. ÆSCULUS. *Gen. Pl.* 628.

[Lat. *Esca*, food; a name not very appropriate to this genus.]

CAL. 1 leaved, ventricose. COR. petals 4 or 5, unequal, pubescent. CAPS 3 celled. *Seeds* large.

Æ. HIPPOCASTANUM. *Willd.* Leaves digitate, in 7's; corolla 5 petalled; panicle pyramidal.
Vulgo—Horse Chesnut.
Fl. Middle of May. *Fr. mat.* Latter end of September.
Hab. Yards, in front of houses, &c. 20 to 30 feet high: flowers white. *Nat.* Northern Asia.

Obs. This ornamental tree is occasionally cultivated for the sake of the comfortable *shade* which it affords, in summer.

CLASS VIII. OCTANDRIA.

ORDER, MONOGYNIA.

30. TROPÆOLUM. *Gen. Pl.* 634.

[Lat. *Tropæum*, a trophy; from a fancied resemblance of its flower to a banner.]

CAL. 1 leaved, 4 or 5 cleft, colored, calcarate. COR. petals 4 or 5, unequal. *Nuts* coriaceous, sulcate.

T. MAJUS. *Willd.* Leaves peltate, subrepand; petals obtuse, some of them ciliate below.
Vulgo—Nasturtium, or Nasturtion. Indian Cress. *Sturtion.*
Fl. Latter end of June, and after. *Fr. mat.* Latter end of September.
Hab. Gardens. Annual. 4 to 6 or 8 feet long: flowers reddish orange, large. *Nat.* Peru.

Obs. An ornamental plant; cultivated chiefly for the *young fruit*,—which, when duly prepared, is much esteemed as a condiment.

ORDER, TRIGYNIA.

31. POLYGONUM. *Gen. Pl.* 677.
[Gr. *Poly*, much, and *Gonu*, a knee, or joint; the stem being much jointed.]

CAL. 0. COR. 5 or 4 parted, persistent. *Seed* 1, mostly 3 angled, covered. *Stam.* and *Styles* variable.

P. FAGOPYRUM *Willd.* Stem erect, unarmed; leaves cordate-sagittate; angles of the seeds equal.
Vulgo—Common Buck-wheat.
Fl. Middle of August, and after. *Fr. mat.* Beginning of October.
Hab Fields. Annual. 2 to 4 feet high: flowers white, with tinges of red. *Nat.* Asia.

Obs. The grain of this plant affords a very favorite article of food, under the name of *Buckwheat Cakes*, —and it is extensively cultivated in some neighborhoods: But our best farmers, who possess first rate land, are not fond of sowing it. It is considered a severe crop upon the soil, and not very profitable. It is most cultivated in rough, hilly districts: and is generally employed to subdue wild lands,—for which it is admirably adapted. The flowers have 8 small, shining, nectariferous glands, at the base of the filaments,—on the product of which the honey-bees delight to revel. The seed is usually sown about the middle of July.

CLASS IX. ENNEANDRIA.

ORDER, TRIGYNIA.

32. RHEUM. *Gen. Pl.* 692.
[Gr. *rheo*, to flow; from its medicinal properties: or from the river *Rha*, its place of growth. *De Theis.*]

CAL. 0. COR. 6 cleft, persistent. *Seed* 1, triquetrous.

R. RHAPONTICUM. *Willd.* Leaves cordate, obtuse, glabrous; petioles sulcate above, margins rounded.
Vulgo—Rhubarb. Pie Rhubarb.
Fl. Latter end of May. *Fr. mat.* Middle of July.
Hab. Gardens. Perennial. 3 to 4 feet high: flowers white. *Nat.* Thrace, Scythia, &c.

Obs. Is not Mr. Eaton in error, with respect to this plant, in calling it R. *tartaricum?* See *Smith, in Rees' Cyclopœdia*, on both species. This is cultivated by some, rather as a curiosity, than for purposes of utility; but its succulent, acid petioles, are sometimes used for making tarts,—which are quite palatable.

CLASS X. DECANDRIA.

ORDER, MONOGYNIA.

33. RUTA. *Gen. Pl.* 725.
[A name of obscure and uncertain derivation.]

CAL. 5 or 4 parted. COR. petals 5, or 4, concave. *Recept.* surrounded by 10 nectariferous dots. CAPS. lobate.

R. GRAVEOLENS. *Willd.* Leaves supradecompound; leaflets oblong, terminal ones obovate.
Vulgo—Rue. Garden Rue.
Fl. Latter end of June, and after. *Fr. mat.*
Hab. Gardens. Perennial. 2 to 3 feet high: flowers yellow. *Nat.* Southern Europe.

Obs. This is occasionally to be met with in our gardens on account of its bitter, medicinal qualities; but it is not much attended to.

CLASS XI. POLYANDRIA.

ORDER, MONOGYNIA.

34. CITRUS. *Gen. Pl.* 1218.
[A name of unknown derivation.]

CAL. 5 cleft. COR. petals 5. *Fil.* dilated, connate in parcels. BERRY 9celled, coat carnose.

G. MEDICA. *Willd.* Petioles linear, without wings; leaves oval, acuminate, subserrate.

Vulgo—Lemon tree.

Fl. Last of March, and after. *Fr. mat.*

Hab. Greenhouses, and Parlours, &c. 4 to 10 feet high: flowers purplish white. *Nat.* Asia.

Obs. This tender shrub is cultivated with considerable success, by some curious persons,—so as to produce fine fruit. It is usually inoculated upon an *orange stock*. It appears to flower at different seasons, even when full of fruit,—which latter is a long time in arriving at maturity. Many of the flowers are abortive, having the style short, and the stigma imperfect. The *Lime*, so much used in making punch, is considered a *variety* of this.

C. AURANTIUM. *Willd.* Petioles winged; leaves oval, acuminate, obsoletely serrulate.

Vulgo—Orange tree.

Fl. At various seasons. *Fr. mat.*

Hab. Greenhouses, and Parlours, &c. 5 to 8 or more feet high: flowers white. *Nat.* India, &c.

Obs. This does not succeed so well as the preceding; and is consequently not so frequently attempted. The two species are readily distinguished by the petioles, and not easily by any other mark, when not in fruit. In both, the leaf is connected with the petiole by a sort of articulation.

ORDER, PENTAGYNIA.

35. NIGELLA. *Gen. Pl.* 935.

[Lat. *Niger*, black; in reference to the color of the seeds.]

CAL. 0. COR. petals 5. *Nectaries* 5, 3 cleft, within the corolla. CAPS. 5, connected.

N. SATIVA. *Willd.* Leaves pinnatifid, subpilose; capsules muricate, roundish.

Vulgo—Nutmeg-plant. Small Fennel-flower.

Fl. Latter end of June, and after. *Fr. mat.* August, and after.

Hab. Gardens. Annual. 9 to 15 inches high: flowers bluish white. *Nat.* Egypt, &c.

Obs. Occasionally cultivated for its spicy, aromatic seeds; the flavor of which bears some resemblance to that of the Nutmeg.

CLASS XII. CALYCANDRIA.

ORDER, MONOGYNIA.

36. RIBES. *Gen. Pl.* 390.

[An ancient Arabian name, of uncertain meaning.]

CAL. superior, 5 cleft. COR. petals 5, small. *Stam.* 5. *Style* bifid. BERRY many seeded.

R. RUBRUM. *Willd.* Leaves obtusely 5 lobed; racemes glabrous, nodding; flowers flat.

Vulgo—Red Currant.

Fl. Middle of April. *Fr. mat.* Latter end of June.

Hab. Gardens. 2 to 4 feet high: flowers yellowish green; fruit red. *Nat.* North of Sweden.

Obs. This slender shrub is to be found in almost every garden: and every good housewife knows how to make tarts and domestic wine, and also to prepare a fine jelly, from its fruit. I have also, occasionally, seen the *white* variety,—"*fructu margaritis simili.*"

R. NIGRUM. *Willd.* Leaves punctate beneath; flowers oblong; bractes shorter than the pedicels.

Vulgo—Black Currant.

Fl. Middle of April. *Fr. mat.* Beginning of July.

Hab. Gardens. 3 to 5 feet high: flowers yellowish green; fruit black. *Nat.* Sweden, &c.

Obs. The fruit of this is not highly esteemed, and the plant is but rarely cultivated.

☞ The R. AUREUM, *Nutt.* and *Ph.* or *Missouri Currant*, as it is called,—which is chiefly admired for the beauty, and spicy fragrance of its flowers,—produces a dark purple fruit, but little inferior to the common black currant, in quality, and larger in size.

R. GROSSULARIA. *Willd.* Branches prickly; petioles hairy; bractes 2 leaved; berry hirsute, or glabrous.
Vulgo—Goose-berry. English Goose-berry.
Fl. Middle of April. *Fr. mat.* Beginning of July.
Hab. Gardens. 2 to 4 feet high: flowers yellowish green; fruit pearly, or amber color. *Nat.* Europe.

Obs This delicious fruit does not succeed very well in this vicinity—perhaps for want of skill in the culture. The bushes grow very luxuriantly; but the berries are apt to be covered with a kind of russet mould, which causes them to blight.

Calyx inferior, 5 cleft. Corolla 5 petalled:

37. CERASUS. *Juss. Gen. Pl. p.* 340.

[Lat. *Cerasus*, a Cherry; the name of a town of Natolia, whence that fruit was derived.]

DRUPE succulent, globose, glabrous. *Nut* roundish, smooth, one side slightly sulcate.

C. VULGARIS. Umbels subpedunculate; leaves lance-ovate, glabrous, conduplicate.
Synon. Prunus cerasus. *Willd.* &c. *Vulgo*—Sour Cherry. Common Cherry.
Fl. Middle of April. *Fr. mat.* Beginning of July.
Hab. About houses, &c. 15 to 20 feet high: flowers white; fruit mostly red. *Nat.* Europe.

Obs. This fine fruit is very generally cultivated. There are several sorts propagated by those who are attentive to such matters,—which are believed to be mere *varieties*, affected by long culture, &c. and need not be enumerated here.

It may, however, be worth while to mention, that the trees which produce the valuable variety, called the *Morello* cherry, began about 16 or 18 years ago, in this vicinity, to be affected with a singular disease of the branches, producing rough, cellular protuberances, or enlargements, which have been gradually multiplying until the trees have ceased to bear, and are now totally disfigured, and ruined. It has been supposed to be the work of an Insect; but the cause is not satisfactorily ascertained. The disease, hitherto, has been almost exclusively confined to the *Morello;* but of late I observe something like it appearing occasionally in the common sour cherry trees. For some interesting papers on this subject, see the 7th volume of the *American Farmer*:—a work which is replete with valuable information in every department of Agriculture.

C. AVIUM. Umbels sessile; leaves lance-ovate, pubescent beneath, conduplicate.
Synon. Prunus avium. *Willd.* &c. *Vulgo*—English cherry Bird cherry.
Fl. Middle of April. *Fr. mat.* Beginning of July.
Hab. About houses, &c. 30 to 60 feet high: flowers white; fruit black, or red. *Nat.* Northern Europe.

Obs. We have also several *varieties* of this species,—and some which appear as if they might be *hybrids*, partaking of the characters of both this and the preceding,—such as the *May-duke, Bleeding-heart*, &c.

38. PRUNUS. *Juss. Gen. Pl. p.* 341.

[The Latin name for the Plum; origin unknown.]

DRUPE carnose, mostly oval, glabrous. *Nut* ovate, subcompressed, acute.

P. DOMESTICA. *Willd.* Peduncles subsolitary; leaves lance-ovate, convolute; branches thornless.
Vulgo—Black Plum. Common Plum. Damascene Plum.
Fl. Middle of April. *Fr. mat.* Latter end of August.
Hab. Gardens, &c. 10 to 15 feet high: flowers white; fruit bluish black. *Nat.* Southern Europe.

Obs There are many *varieties* of this, and some valuable ones cultivated here; but our farmers and gardeners have not yet taken sufficient care to introduce the best sorts, extensively.

P. CHICASA. *Ell.* Flowers fasciculate; leaves narrow-lanceolate, serrulate; branches spinose.
Synon. P. angustifolia. *Marsh.* *Vulgo*—Chicasaw Plum. Mountain Cherry.
Fl. Middle of April. *Fr. mat.* Latter end of August.
Hab. Gardens. 10 to 15 feet high: flowers white; fruit yellowish red. *Nat.* Southern States.

Obs. This pleasant fruit has been introduced in a few instances; but it is not common. The drupe is globose; whence it has acquired the name of mountain *cherry*.

39. ARMENIACA. *Juss. Gen. Pl. p.* 341.

[Derived from *Armenia*, the native country of the fruit.]

DRUPE carnose, mostly oval, pubescent. *Nut* one margin acute, the other obtuse, sulcate both sides.

A. VULGARIS. *Eaton.* Leaves sub-cordate, dentate; stipules palmate; fruit sub-compressed.
Synon. Prunus armeniaca. *Willd.* *Vulgo*—Common Apricot.
Fl. Beginning of April. *Fr. mat.* Latter end of July.
Hab. Gardens, &c. 10 to 15 feet high: flowers white; fruit yellowish. *Nat.* of the East.

Obs. There are several *varieties* of this cultivated under different names; such as *Moor-park, Brussels*, &c

A. DASYCARPA. *Eaton.* Leaves ovate, acuminate, doubly serrate; drupe sub-globose, pubescent.
Synon. Prunus dasycarpa. *Willd.* *Vulgo*—Black Apricot.
Fl. Middle of April. *Fr. mat.* Beginning of August?
Hab. Gardens, &c. 10 to 15 feet high: flowers white; fruit *Nat.* of the East?

Obs. This has more of the habit of a plum tree, than the preceding. Neither of them have been much attended to, in this vicinity, hitherto; and those which have been introduced, have not borne well. The fruit is generally destroyed, while young, by the puncture of a *Curculio*,—an evil, the prevention of which is "a consummation devoutly to be wished."

40. AMYGDALUS. *Gen. Pl.* 848.

[*Amygdalon*, the Greek name of the Almond; which belongs to this genus.]

DRUPE roundish-oval, tomentose. *Nut* ovate, acute, reticulately sulcate, and porous.

A. PERSICA. *Willd.* Serratures of the leaves all acute; flowers sessile, solitary; drupe carnose.
Vulgo—Peach. Peach tree.
Fl. Beginning of April. *Fr. mat.* Middle of August, and after.
Hab. Gardens, Orchards, &c. 8 to 12 feet high: flowers reddish purple, or pale red. *Nat.* Persia.

Obs. This most delicious of all our fruit is pretty extensively cultivated here—though few take sufficient pains to procure and propagate the best *varieties*. The tree, unfortunately, is short lived,—chiefly in consequence of the ravages of a worm at its roots, against which every device, hitherto essayed, seems to be unavailing. There is, perhaps, no certain preservative, but a frequent and careful inspection of the roots, and a removal of the insect—a more correct knowledge of the habits of which, is very desirable.

It is proper, however, to mention, that an ingenious expedient was suggested, about three years ago, by David Townsend, Esqr. of this Borough, which is now in process of trial, and bids fair to answer a valuable purpose. The attempt has been repeatedly made to insert the peach on a *plum stock*, on account of the roots of the latter being less subject to the ravages of the worm: but the two trees are so dissimilar that the peach does not thrive well on a plum stock. It occurred to Mr Townsend, that as the *Apricot* appeared to be more nearly related to the peach, it would probably afford a more congenial stock. Accordingly, he inoculated plum stocks with apricot buds, (which take very readily,) and as soon as the latter had grown sufficiently—say the succeeding year,—he inserted peach buds on the apricot branches; thus making a sort of *three-story*, or triple tree. The result has, so far, been equal to his most sanguine expectations. The peach branches are flourishing vigorously; and there is every prospect of the experiment succeeding completely. A very few years will test it fully; and if it should answer present expectation, it will prove to be a very important discovery. It would, perhaps, answer the same purpose, to raise Apricot stocks at once, in which to insert the peach buds: but as plum stocks are every where abundant, it was found more convenient, and expeditious, to resort to the foregoing method.

☞ The NECTARINE.—a delicate *variety* of the Peach, with smoother fruit,—is very little known, as yet, in this vicinity; though it has latterly been introduced.

ORDER, DI-PENTAGYNIA.

Calyx superior, 5 cleft. Corolla 5 petalled.

41. CRATÆGUS. *Gen. Pl.* 854.

[Gr. *Kratos*, strength; from the strength, or firmness of the wood. *De Theis.*]

Styles 1 to 5. BERRY, or POME, spherical, farinaceous. *Seeds* 1 to 5, bony.

C. POPULIFOLIA. *Ph.* Spinose; leaves cordate-ovate, acuminate, incise-angled, and lobate; styles 5.
Synon. C. cordata. *Willd. Muhl. Ell.* *Vulgo*—Washington Thorn. Virginia Thorn.
Fl. Middle of June. *Fr. mat.* Beginning of October.
Hab. Hedges. 15 to 20 feet high: flowers white; berries red, small. *Nat.* Virginia, &c.

Obs. This thorn was introduced into this vicinity about 25 years ago, for the purpose of *hedging;* and is now pretty extensively cultivated for that object. The plant is readily propagated by the seeds,—which it produces in abundance,—and grows rapidly. When proper care is taken, (and it is worse than useless to undertake it *without* proper care,) a good hedge can be obtained in about ten years from the time of planting the seeds. It has been objected to this thorn, that as it is of such rapid growth, it will probably be short lived. This objection will have some weight, if it shall prove to be well founded: but, as Dr. Franklin remarked, in relation to the longevity of the Anglo-Americans,—we cannot yet determine that question; for those which were first planted are still living, and flourishing in full vigor. Some very respectable farmers condemn hedges altogether, and recommend fences in preference: but it is in vain to recommend fences to those who have no timber—and he who will inspect a perfect hedge—such as may be seen in the neighborhood of Mr. Caleb Kirk's factory, on the Brandywine,—will require no *argument* to convince him of its eligibility, and value.

42. PYRUS. *Juss. Gen. Pl. p.* 335.
[The Latin name for the Pear.]

Styles distinct at base, villous. POME turbinate, umbilicate at apex only, produced on the peduncle.

P. COMMUNIS. *Willd.* Leaves lance-ovate, serrate, smooth above; peduncles corymbose.
Vulgo—Pear. Pear tree.
Fl. Beginning of May. *Fr. mat.* August, and after.
Hab. Gardens, &c. 15 to 25 feet high: flowers white. *Nat.* Europe.

Obs. Many *varieties* of this favorite fruit are cultivated here. The branches of the trees, in many instances, are very subject to blight, from some cause not yet ascertained.

P. CYDONIA. *Willd.* Leaves ovate, entire; flowers solitary; fruit tomentose, sub-turbinate.
Vulgo—Quince tree.
Fl. Beginning of May. *Fr. mat.* Last of September.
Hab. Gardens, &c. 8 to 12 feet high. flowers reddish white. *Nat.* Shores of the Danube, &c.

Obs. Generally introduced. The fruit is chiefly used by notable house-wives in making *preserves*, and domestic wine. It is apt to be much injured, by insects, during its progress to maturity.
Jussieu, in his *Genera*, has separated the Quince, as well as the Apple, from the Pear,—and it is certainly pretty distinct; but not, perhaps, sufficiently so, in a botanical point of view.

43. MALUS. *Juss. Gen. Pl.* 334.
[The Latin name for the Apple tree.]

Styles connate at base, hirsute. POME spheroid, glabrous, umbilicate at each end.

M. COMMUNIS. Leaves ovate-oblong, acuminate, serrate; flowers in sessile umbels.
Synon. Pyrus malus. *Willd.* &c. *Vulgo*—Common Apple. Apple tree.
Fl. Beginning of May. *Fr. mat.* August till November.
Hab. Orchards, &c. 15 to 30 feet high: flowers reddish white. *Nat.* Europe.

Obs. Almost numberless *varieties* of this highly valuable fruit are cultivated here—though too many worthless ones are often permitted to occupy the ground, to the exclusion of better,—for want of a little taste, or attention, on the part of the proprietors. For an excellent account of the most approved varieties of this, and other fruit, and the modes of culture, see the *Treatise on Fruit Trees*, by Wm. Coxe, Esqr. Some of our more intelligent farmers have acquired the art of preparing *cider*, from the fruit, in great perfection.

ORDER, POLYGYNIA.

44. RUBUS. *Gen. Pl.* 864.
[Lat. *Ruber*,—or Celtic, *rub*, red; from the color of the fruit, or branches of the plant.]

CAL. inferior, 5, cleft. COR. petals 5. BERRY compound; acines mostly juicy, 1 seeded.

R. IDÆUS. *Willd.* Stem prickly; leaves quinate-pinnate, and ternate; petioles channelled.
Vulgo—Garden Raspberry. Antwerp Raspberry, &c.
Fl. Latter end of May. *Fr. mat.* Latter end of July.
Hab. Gardens. 3 to 6 feet high: flowers white; fruit red, or yellowish. *Nat.* Europe.

Obs. Some *varieties* of this pleasant fruit are cultivated here; but not extensively.

45. FRAGARIA. *Gen. Pl.* 865.
[Lat. *fragrans*, smelling sweetly: in reference to its fragrant fruit.]

CAL. inferior, 10 cleft. COR. petals 5. *Receptacle* of the seeds ovate, *berried*, deciduous.

F. VESCA. *Willd.* Calyx of the fruit reflexed; hairs on the petioles spreading, on the peduncles appressed.
Vulgo—Strawberry. English Strawberry. Garden Strawberry.
Fl. Latter end of April. *Fr. mat.* Beginning of June.
Hab. Gardens. Perennial. 1 to 2 feet long: flowers white; fruit red, or yellowish white. *Nat.* Europe.

Obs. This exquisitely fine fruit is frequently cultivated, here—but not extensively, nor always with complete success,—for want, probably, of a due knowledge of the management required. Some of the varieties, or perhaps species, are said to be *Dioicous*,—and our gardeners profess to be familiar with the characters of the Male and Female plants. There *may* be species which are truly dioicous, but all which have been shown to me as such, had every appearance of being *abortive*, or imperfect, from some accident of soil, climate, or other cause.

The *Haut-boy*, and *Chili* Strawberries, are considered, by late writers, as distinct species from the foregoing,—under the names of F. *elatior*, and F. *chiloensis*, respectively:—for a good account of which, see *Rees's Cyclopædia, Art.* FRAGARIA.

CLASS XIII. DIDYNAMIA.

ORDER, GYMNOSPERMIA.

a. *Calyx nearly equally 5 cleft.*

46. LAVANDULA. *Gen. Pl.* 965.

[Lat. *lavando*; from *lavare*, to wash; being anciently used in the baths, as a perfume.]

CAL. ovate, sub-dentate, supported by a bracte COR. resupinate. *Stam.* within the tube.

L. SPICA. *Willd.* Leaves sessile, lance-linear, margin revolute; spike naked, interrupted.
Vulgo—Lavender. Spike.
Fl. Latter end of July. *Fr. mat.* Middle of September.
Hab. Gardens. Perennial. 1 to 2 feet high: flowers purplish blue. *Nat.* Southern Europe.

Obs. This pleasant and warmly aromatic herb is much used in tincture, as a cordial, under the name of *Lavender compound.* The pungent fragrance of *Cologne water* is derived from this plant: and the genuine *Oil of Spike* is obtained from the *broad-leaved* variety.

47. HYSSOPUS. *Gen. Pl.* 963.

[An ancient name, adopted for this genus: "a voce hebraica *Ezob.*" *Boerh.*]

COR. lower lip 3 parted; middle segment obcordate, subcrenate. *Stamens* straight, distant.

H. OFFICINALIS. *Willd.* Leaves lanceolate; flowers verticillate, racemose, secund.
Vulgo—Hyssop. Garden Hyssop.
Fl. Latter end of July. *Fr. mat.* Middle of September.
Hab. Gardens. Perennial. 1½ to 3 feet high: flowers blue. *Nat.* Austria, &c.

Obs. Chiefly used in making a pleasant *tea*, in fevers, &c. and occasionally to be met with in the gardens of those who are fond of *simples*, in medicine.

48. SATUREJA. *Gen. Pl.* 961.

[Gr. *Satyros*, a satyr; in allusion to its supposed qualities—"quia satyriasmum inducit." *Boerh.*]

CAL. tubular, striate. COR. segments nearly equal. *Stamens* distant.

S. HORTENSIS. *Willd.* Stem brachiate; leaves lanceolate, entire; peduncles axillary, subcymose.
Vulgo—Summer Savory.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Gardens. Annual. 9 to 15 inches high: flowers pale blue. *Nat.* Greece, &c.

Obs. Cultivated for culinary purposes, as a condiment.

b. *Calyx bilabiate.*

49. MELISSA. *Gen. Pl.* 983.

[Gr. *Melissa*, a bee; from that insect, as is alleged, frequenting the flowers.]

CAL. dry, flattish above, upper lip subfastigiate. COR. upper lip somewhat vaulted, 2 cleft.

M. OFFICINALIS. *Willd.* Leaves ovate, acute, serrate; verticils halved; bractes oblong, pedicellate.
Vulgo—Balm. Common Balm.
Fl. Latter end of July. *Fr. mat.* Beginning of September.
Hab. Gardens. Perennial. 1 to 2 feet high: flowers white. *Nat.* Geneva, Italy, &c.

Obs. The infusion is a pleasant and popular beverage, in fevers, &c. for which object it is much cultivated. In some instances it has strayed into the woodlands, and become almost naturalized.

50. OCIMUM. *Gen. Pl.* 986.

[Gr. *Okys*, quick, or swift; in allusion to its quick vegetation, or rapid growth.]

CAL. upper lip orbicular, lower 4 cleft. COR. resupinate. *Filam.* outer ones with a process at base.

O. BASILICUM. *Willd.* Leaves ovate, glabrous; calyx ciliate.
Vulgo—Basil. Sweet Basil.
Fl. Latter end of July. *Fr. mat.* Last of September.
Hab. Gardens. Annual. 6 to 12 inches high: flowers bluish. *Nat.* India and Persia.

Obs. Cultivated for culinary purposes, as a condiment.

51. ORIGANUM. *Gen. Pl.* 981.

[Gr. *Oros*, a mountain, and *Ganos*, joy; alluding to its fragrance, and place of growth.]

Flowers in a dense, 4 angled spike. COR. upper lip erect, flat; lower 3 parted, segments nearly equal.

O. MAJORANA. *Willd.* Leaves petiolate, oval, obtuse; spikes roundish, ternate, pedunculate.
Vulgo—Sweet Marjoram.
Fl. Last of July, and after. *Fr. mat.* Latter end of September.
Hab. Gardens Annual. 6 to 12 inches high: flowers white. *Nat.* Portugal, Palestine, &c.
Obs. Cultivated for culinary purposes, as a condiment.

☞ For THYMUS SERPYLLUM. or *Thyme*, see page 69 of this catalogue. A larger *variety* is cultivated in gardens, as a condiment,—which is probably the T. *lanuginosus*, of Willdenow; but which Dr. Smith, *in Cyclopæd.* thinks is not specifically distinct.

ORDER, ANGIOSPERMIA.

52. DIGITALIS. *Gen. Pl.* 1017.

[Lat. *Digitale*, a thimble, finger-stall, or finger of a glove; from the form of the flower.]

CAL. 5 parted. COR. campanulate, 5 cleft, ventricose. CAPS. ovate, 2 celled, many seeded.

D. PURPUREA. *Willd.* Leaves lance-ovate, rugose; calyx segments ovate, acute; corolla obtuse.
Vulgo—Fox-glove. Purple Fox-glove.
Fl. Last of June, and after. *Fr. mat.* Last of August, and after.
Hab. Gardens. Biennial. 1½ to 2 feet high: flowers purple, or white. *Nat.* Southern Europe.

Obs. Both *varieties* of this ornamental plant, the purple, and white flowered, are occasionally cultivated on account of the medicinal properties which it possesses. I have used it several times, in my practice; but have not been so fortunate as to find it endowed with half the virtues ascribed to it by Dr. Withering, and others,—though I have reason to believe it is far from being an inert plant. Dr. Hamor, of Delaware county, informs me he has found it highly useful, in cases of pneumonia.

53. SESAMUM. *Gen. Pl.* 1048.

[A name said to be derived from the Arabic language.]

CAL. 5 parted. COR. campanulate, 5 cleft. *Stam.* rudiment of a 5th. CAPS. obtusely 4 angled, 4 celled.

S. INDICUM. *Willd.* Leaves lance-ovate, lower ones 3 lobed, upper ones undivided, serrate.
Vulgo—Bene, or Benni. Oily-grain.
Fl. Middle of August, and after. *Fr. mat.*
Hab. Gardens. Annual. 2 to 4 feet high: flowers reddish white. *Nat.* India.

Obs. This plant has been introduced here within a year or two, and cultivated on account of the *mucilage* which its leaves afford, when macerated in water, and which has been found beneficial in the bowel complaints of children: but our summers are too short to mature the seeds,—and the culture can only be kept up by a supply of seeds from the Southern States.

CLASS XIV. TETRADYNAMIA.

ORDER, SILICULOSA.

54. LEPIDIUM. *Gen. Pl.* 1077.

[Supposed from the Gr. *Lepis, lepidos*, a scale, or shell; from the form of the seed-vessels.]

Silicle orbicular, emarginate, 2 celled: cells 1 seeded; valves carinate; dissepiment contrary.

L. SATIVUM. *Willd.* Leaves oblong, many cleft.
Vulgo—Pepper-grass. Garden Cress. Tongue-grass.
Fl. Latter end of June, and after. *Fr. mat.* Beginning of August.
Hab. Gardens. Annual. 9 to 15 inches high: flowers white. *Native* country uncertain.

Obs. The young herb is pungent and antiscorbutic, like the majority of the plants of this Class. It is used as a salad, or cress; and frequently cultivated.

55. COCHLEARIA. *Gen. Pl.* 1079.

[Lat. *Cochleare*, a spoon; from a fancied resemblance in the leaves of the plant.]

Silicle emarginate, turgid, scabrous; valves gibbous, obtuse.

C. OFFICINALIS. *Willd.* Radical leaves roundish-cordate, cauline oblong, sub-sinuate.
Vulgo—Scurvy-grass. Garden Scurvy-grass.
Fl. Latter end of June. *Fr. mat.* Last of July.
Hab. Gardens. Biennial? 9 to 15 inches high: flowers white. *Nat.* Northern Europe.
Obs. Used as the foregoing; but not much cultivated here.

C. ARMORACIA. *Willd.* Radical leaves large, lanceolate, crenate, or pinnatifid; cauline incised.
Vulgo—Horse Radish.
Fl. Middle of May, and after. *Fr. mat.* Last of June, and after.
Hab. Gardens, &c. Perennial. 1½ to 3 feet high: flowers white. *Nat.* Europe.

Obs. The pungent root of this plant is in general use at table, in the spring of the year; and is sometimes used externally, in medicine, as a rubefacient. It thrives best in moist situations.

ORDER, SILIQUOSA.

Flowers with glands between the short stamens and pistil, and between the long stamens and calyx.

56. BRASSICA. *Gen. Pl.* 1096.

[A name of disputed, and consequently of doubtful, derivation. See *De Theis, &c.*]

CAL. erect, connivent. *Silique* with the dissepiment longer than the valves. *Seeds* globose.

B. RAPA. *Willd.* Root orbicular, depressed, carnose; radical leaves rough, cauline smooth.
Vulgo—Turnip. Common Turnip.
Fl. Middle of May. *Fr. mat.* Latter end of June.
Hab. Fields, &c. Biennial. 2 to 4 feet high: flowers yellow. *Nat.* England, &c.

Obs. This fine esculent root is generally cultivated here for the table. It is not much esteemed for stock, —especially milk cows,—but is often given to sheep. The seed is usually sown the latter end of July, or beginning of August,—on good, and *new* ground, if it can be had. Several varieties occur; white, yellow, &c.

B. OLERACEA. *Willd.* Root mostly terete, carnose; leaves all glabrous, glaucous, repand, or lobate.
Vulgo—Garden Cabbage. Cauliflower. Broccoli. Ruta baga, or Swedish Turnip.
Fl. Latter end of May. *Fr. mat.* Beginning of July
Hab. Gardens, &c. Biennial. 2 to 4 feet high: flowers yellow. *Nat.* England.

Obs. Many *varieties* of this valuable plant are cultivated, under equally numerous appellations. In addition to several, which are evidently nearly allied to the common cabbage, are some which would seem to be almost *specifically* distinct—such, for instance, are the *Cauliflower*, (var. *botrytis.*) and the *Ruta baga, Swedish Turnip*, or *Turnip-rooted Cabbage* (var. *Napo-brassica*). They are all, however, considered by Botanists as nothing more than varieties of the B. oleracea. The *Ruta baga* has been tried to some extent, by several of our farmers; but, as remarked in another place, the culture of *roots* will not become a primary object, while we can raise good crops of Indian Corn. The *Cauliflower* is not much cultivated here. The *variety* called *Broccoli* succeeds best, in our gardens.

57. SINAPIS. *Gen. Pl.* 1097.

[An ancient name, of obscure derivation.]

CAL. spreading. COR. claws straight. *Siliqua* with the dissepiment often twice as long as the valves.

S. NIGRA. *Willd.* Siliques glabrous, appressed to the raceme, apex 4 angled.
Vulgo—Mustard. Black Mustard.
Fl. Beginning of July. *Fr. mat.* Middle of August.
Hab. About houses, &c. Annual. 3 to 6 feet high: flowers yellow. *Nat.* Northern Europe.

Obs. This plant is almost naturalized about some old settlements—where the ripe seeds are collected for use. It is rarely cultivated regularly. The seeds are a powerful stimulus; the use of which, at table, is familiarly known. They are also much employed in medicine, as a rubefacient, &c.

58. RAPHANUS. *Gen. Pl.* 1098.

[Gr. *Ra*, easily, or quickly, and *phainomai*, to appear; alluding to its speedy germination.]

CAL. closed. *Silique* torose, sub-articulate, terete, not opening by valves, 1 or 2 celled.

R. SATIVUS. *Willd.* Leaves lyrate; siliques terete, torose, 2 celled.
Vulgo—Radish. Garden Radish.
Fl. Middle of June, and after. *Fr. mat.* Last of July, and after.
Hab. Gardens, &c. Annual. 2 to 3 feet high: flowers white. *Nat.* China.

Obs. This favorite root, of which there are two or three *varieties*, is almost universally cultivated, for the table. The seeds may be planted at any time from early spring till autumn, to furnish a succession of roots.

CLASS XV. MONADELPHIA.

ORDER, POLYANDRIA.

59. ALTHÆA. *Gen. Pl.* 1132.

[Gr. *althanein*, to heal; from its reputed medical virtues.]

CAL. double; outer 6 or 9 cleft, inner 5 cleft. COR. petals 5. CAPS. many, 1 seeded, arranged orbicularly.

A. OFFICINALIS. *Willd.* Leaves tomentose, oblong-ovate, obsoletely 3, or 5 lobed, acute, plicate, serrate.
Vulgo—Marsh Mallows. Althea.
Fl. Middle of July, and after. *Fr. mat.* Beginning of September, and after.
Hab. Gardens. Perennial. 2 to 4 feet high; flowers purple. *Nat.* Europe.

Obs. Esteemed medicinal, for its mucilage; but it is rarely cultivated, and little attended to, here.

60. GOSSYPIUM. *Gen. Pl* 1138.

[A name supposed to be of Egyptian origin: etymology obscure.]

CAL. double; outer 3 cleft, flattish, larger. COR. petals 5. CAPS. 3 or 4 celled. *Seeds* involved in long wool.

G. HERBACEUM. *Willd.* Leaves mostly 5 lobed, mucronate, one gland beneath on the midrib.
Vulgo—Cotton.
Fl. Middle of August, and after. *Fr. mat.*
Hab. Gardens, &c. Annual. 2 to 3 feet high: flowers yellow and purple. *Nat.* India, Africa, &c.

Obs. The large, compressed, outer calyx is usually laciniate on the margin, or cleft into numerous, long, narrow segments.
This plant, which contributes so largely towards the clothing of mankind, and constitutes so important an article in the commerce of our country, has not yet been cultivated to any extent in this vicinity. The summers are generally too short to mature the fruit. But, from some attempts which have been recently made, there is reason to believe that the plant might be gradually acclimated here. Whether it would be advisable for our farmers to turn their attention to an object so much better adapted to the Southern States, is another question,—which time and circumstances must solve.

61. HIBISCUS. *Gen. Pl.* 1139.

[An ancient Greek name; of unknown derivation.]

CAL. double; outer many leaved, inner 5 cleft. COR. petals 5. *Stig.* 5. CAPS. 5 celled, many seeded.

H. ESCULENTUS. *Willd.* Leaves cordate, 5 lobed, rather obtuse; inner calyx bursting lengthwise
Vulgo—Okra. Eatable Hibiscus.
Fl. Beginning of August. *Fr. mat.* Last of September.
Hab. Gardens. Annual. 1½ to 3 feet high: flowers yellowish white. *Nat.* West Indies.

Obs. Occasionally cultivated as a pot-herb; but not much attended to.

CLASS XVI. DIADELPHIA.

ORDER, DECANDRIA.

A. FILAMENTS ALL UNITED: or Monadelphous.

62. ARACHIS. *Gen. Pl.* 1177.

[A name of obscure derivation.]

CAL. bilabiate. COR. resupinate. LEGUME gibbous, torulose, veined, coriaceous.

A. HYPOGÆA. *Cyclopæd.* Stem procumbent, pilose; leaves pinnate; leaflets 2 pairs, obovate.
Vulgo—Ground-nut. Earth-nut. Pea-nut.
Fl. Middle of July. *Fr. mat.* Last of September.
Hab. Gardens. Annual. 9 to 18 inches long: flowers yellow. *Nat.* South America.

Obs. This curious little plant is sometimes, though but rarely, cultivated here. The soil seems not to be very congenial, and the summers too short. The vast quantities of the fruit which are consumed here, are brought from the South. Though I have sometimes raised the plant, I have not had occasion to notice its economy. It is stated, in Rees's Cyclopædia, that "as soon as the flower begins to decay, the germ thrusts itself under ground, and the pod is formed and ripened."

B. FILAMENTS IN 2 SETS: mostly 9 together, and 1 separated.

a. *Legume many seeded. Stigma pubescent.*

63. PISUM. *Gen. Pl.* 1184.

["A *Pese*, vel *Pesen*, (Gr.) cecidit,—quia si Pisum non sustineatur, cadit in terram." *Boerh.*]

CAL. segments leaflike, the 2 upper shorter. *Style* triangular, carinate above.

P. SATIVUM. *Willd.* Petioles terete; stipules round and crenate at base; peduncles many flowered.
Vulgo—Pea. Garden Pea.
Fl. Beginning of June, and after. *Fr. mat.* Latter end of July.
Hab. Gardens. Annual. 2 to 5 feet high: flowers white, and purplish. *Nat.* Europe.

Obs. Several *varieties* of this favorite vegetable are cultivated for the table; but rarely for any other object. Seeds planted beginning of April,—and after, to afford a succession. This is a hardy plant,—not easily injured by frost.

64. VICIA. *Gen. Pl.* 1187.

[An ancient name, of obscure derivation. See *De Theis.*]

CAL. 2 upper teeth shorter, connivent. *Stigma* transversely bearded on the lower side.

V. FABA. *Willd.* Stem erect; leaflets ovate, entire; petioles without tendrils; legumes subsessile, torulose.
Vulgo—Big Bean. Horse Bean. Windsor Bean.
Fl. Middle of June, and after. *Fr. mat.* Middle of August.
Hab. Gardens. Annual. 1 to 2 feet high: flowers white, with a black spot. *Nat.* Persia.

Obs. This bean is frequently cultivated; but not very generally admired,—having a strong, and rather unpleasant taste, to many persons. Seeds planted in April and May.

65. PHASEOLUS. *Gen. Pl.* 1180.

[Lat. *Phaselus*, a boat; in reference to the figure of the legume.]

COR. keel, with the stamens and style, spirally twisted. LEGUME compressed, falcate. *Seeds* reniform

P. VULGARIS. *Willd.* Voluble; racemes solitary, shorter than the leaves; peduncles in pairs; pods pendulous.
Vulgo—Common Pole-Bean. Kidney Bean.
Fl. Beginning of July, and after. *Fr. mat.* Latter end of August.
Hab. Gardens, &c. Annual. 5 to 8 feet high: flowers white, or purplish. *Nat.* East Indies.

Obs. Generally cultivated for the table: when young, the legume and seeds are both used. Seeds planted latter end of April, and after.

P. LUNATUS. *Willd.* Voluble; legumes scymitar-form, sublunate, smooth; seeds compressed.
Vulgo—Carolina Bean. Lima Bean.
Hab. Gardens. Annual. 6 to 8 feet high: flowers greenish white. *Nat.* Bengal.

Obs. Frequently cultivated; but not so generally as the preceding. The seeds chiefly are used,—though the young legumes are, occasionally. The *Lima*, and *Carolina* beans, so called, are believed to be only *varieties* of the same species. They are planted the beginning of May.

P. NANUS. *Willd.* Stem erect, smooth; legumes pendulous, compressed, rugose.
Vulgo—Bunch Bean. Bush Bean. String-Bean.
Fl. Middle of June, and after. *Fr. mat.* Middle of August.
Hab. Gardens, &c. Annual. 12 to 18 inches: flowers white. *Nat.* India.

Obs. Very generally cultivated: the young legumes are cooked with the seeds, and constitute a favorite vegetable dish. This seems to approach near to P. *vulgaris*; and, I believe, has been considered only as a *variety* of it, by some botanists. Seeds planted the latter end of April, and after. The young plants are delicate, and easily affected by frost.

b. *Legume few seeded.*

66. MEDICAGO *Gen. Pl.* 1214.

[So named from having been introduced by the *Medes* into Greece.]

COR. keel deflected from the banner. LEGUME compressed, cochleate.

M. SATIVA. *Willd.* Leaflets oblong, dentate; peduncles racemose; legumes smooth; stipules entire.
Vulgo—Lucerne-grass. Medick.
Fl. Latter end of June. *Fr. mat.* Middle of August.
Hab. Small lots. Perennial. 1 to 2 feet high: flowers pale bluish purple. *Nat.* Spain, &c.

Obs. This plant has been occasionally introduced, on a small scale, as a substitute for clover; and is said to answer well for *soiling*—i. e. to be cut, and fed to stock that are confined in enclosures: but it does not take the attention of our farmers, and is very little cultivated here.

c. *Legume mostly* 1 *seeded.*

67. TRIFOLIUM. *Gen. Pl.* 1211.

[Lat. Literally meaning *three leaves;* a feature characteristic of the genus.]

Flowers sub-capitate. LEGUME valveless, included in the calyx, 1 to 4 seeded.

T PRATENSE. *Willd.* Ascending; leaflets oval, subentire; stipules awned; spikes dense, ovate.
Vulgo—Red Clover. Purple Trefoil. Honeysuckle Clover.
Fl. Latter end of May, and after. *Fr. mat.* Latter end of July.
Hab. Fields, meadows, &c. Perennial. 1 to 3 feet high: flowers purple, rarely white. *Nat.* Europe.

Obs. This plant, so highly and justly esteemed by our Agriculturists, has become completely naturalized. The culture of it began to prevail, here, about 35 years ago; and it is now sedulously pursued by every good farmer. It ameliorates the soil, affords good pasture, and, when mixed with *Timothy, Orchard-grass,* and some of the other culmiferous plants, makes first-rate hay. The introduction of clover, with the use of gypsum, has put an entirely new face upon this district of country, within the period above mentioned. The seed is usually sown in the month of March, among green wheat, and rye; and it has been remarked that it generally succeeds best among the latter. It is the *second* growth, or crop, of the clover, from which the *seed* is obtained, for sowing; and it is ripe in the beginning of September. The universal prevalence of this plant, here, has been sadly unpropitious to the labors of the *Honey Bee,*—inasmuch as the tube of the corolla is so long that the little insect is not able to reach the nectar with its proboscis.

CLASS XVII. SYNGENESIA.

ORDER, POLYGAMIA AEQUALIS.

A. FLORETS ALL LIGULATE: *Receptacle naked.*

68. TRAGOPOGON. *Gen. Pl.* 1229.

[Gr. *Tragos,* a goat, and *Pogon* a beard; from a fancied resemblance in its long pappus.]

CAL. simple, many leaved. *Pappus* stipitate, plumose. *Seed* oblong, angled.

T. PORRIFOLIUS. *Willd.* Galyx longer than the rays; corollules narrow, truncate; peduncles incrassate.
Vulgo—Oyster-plant. Salsafy. Purple Goat's-beard.
Fl. Beginning of June. *Fr. mat.* Beginning of July.
Hab. Gardens. Biennial. 3 to 5 feet high: flowers violet purple. *Nat.* Switzerland, &c.

Obs. This is sometimes, though not extensively, cultivated here, for the sake of the root,—which amateurs fancy to resemble the oyster, in flavor, when properly cooked.

69. LACTUCA. *Gen. Pl.* 1234.

[Lat. *Lac, lactis,* milk; in reference to the milky juice of the plant.]

CAL. cylindric, imbricate, margins membranaceous. *Pappus* stipitate, pilose. *Seed* compressed.

L. SATIVA. *Willd.* Stem corymbose; lower leaves rounded, cauline cordate.
Vulgo—Garden Lettuce. Garden Salad.
Fl. Middle of July. *Fr. mat.* Middle of August.
Hab. Gardens. Annual. 2 to 4 feet high: flowers yellow. *Native* country uncertain.

Obs. This favorite salad, of which there are several *varieties,* is generally cultivated. The seed sown early in March, and after.

B. FLORETS ALL TUBULAR: *Flowers capitate.*

70. CARTHAMUS. *Gen. Pl.* 1261.

[A name of uncertain derivation. See *De Theis.*]

CAL. imbricate, scales subovate-foliaceous at apex. *Pappus* chaff-hairy, or 0. *Recept.* chaff-bristly.

C. TINCTORIUS. *Willd.* Stem smooth; leaves ovate, entire, spinose-dentate; seeds naked.
Vulgo—Saffron. Bastard Saffron. Safflower.
Fl. Middle of July. *Fr. mat.* Middle of September.
Hab. Gardens. Annual. 1 to 2 feet high; flowers orange color. *Nat.* Egypt, &c.

Obs. This is occasionally cultivated. The flowers are used as a domestic dye-stuff; and the infusion of them is a highly popular medicine, in the diseases of children. The *Saffron tea* of the good Ladies, is considered "the sovereign'st thing on earth" to relieve internal distress, and drive peccant humors to the surface!

ORDER, POLYGAMIA SUPERFLUA.

a. *Flowers discoid.*

71. ARTEMISIA. *Gen. Pl.* 1281.

[Supposed to be dedicated to *Artemisia*, wife of Mausolus.]

CAL imbricate, scales rounded, connivent. *Pappus* 0 *Recept.* subvillose, or naked.

A. ABROTANUM. *Willd.* Stem strict; lower leaves bipinnate, upper ones capillaceous-pinnate.
Vulgo—Southern-wood. Old man. Mug-wort.
Fl. Middle of August *Fr. mat.* Last of September.
Hab. Gardens. Perennial. 2 to 3 feet high. *Nat.* Syria, &c.

Obs. This bitter, and somewhat fragrant shrub, is to be found in most gardens. It is frequently used in fomentations, in popular practice.

A. ABSINTHIUM. *Willd.* Leaves hoary, compound, multifid; flowers pedunculate, nodding.
Vulgo—Worm-wood.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Gardens. Perennial. 2 to 4 feet high. *Nat.* Europe.

Obs. This plant, proverbial for its bitterness, is also to be met with in every garden; and possesses valuable medical properties, as a tonic, vermifuge, &c.

b. *Flowers radiate: Receptacle chaffy.*

72. ANTHEMIS. *Gen. Pl.* 1312.

[Gr. *Anthemon*, a flower; from the great number which it produces.]

CAL. hemispherical, sub-equal. COR. rays more than 5. *Pappus* 0, or a membranaceous margin.

A. NOBILIS. *Willd.* Stem branching at base; leaflets 3 parted, linear-subulate, subvillous.
Vulgo—Chamomile. Garden Chamomile.
Fl. Latter end of June. *Fr. mat.* Latter end of August.
Hab. Gardens. Perennial. 4 to 9 inches long: rays white. *Nat.* Southern Europe.

Obs. This fragrant, bitter herb, is deservedly popular as a tonic; and is generally introduced into our gardens. The flowers produced in this country are rarely so large and fine as those which are imported.

ORDER, POLYGAMIA FRUSTRANEA.

73. HELIANTHUS. *Gen. Pl.* 1322.

[Gr. *Helios*, the sun, and *Anthos*, a flower; from the resemblance of its flower.]

CAL. imbricate, subsquarrose, foliaceous. *Pappus* chaffy, 2 leaved, caducous. *Recept.* flat, chaffy.

H. TUBEROSUS. *Willd.* Leaves 3 nerved, scabrous; lower ones cordate-ovate, upper ovate; petioles ciliate.
Vulgo—Jerusalem Artichoke.
Fl. Latter end of August. *Fr. mat.*
Hab. Gardens. Perennial. 4 to 6 feet high: rays yellow. *Nat.* Brasil.

Obs. This is occasionally cultivated for the tuberous *root*,—which is pickled, and brought to table under the name of *Artichoke*.

☞ There is no plant belonging to the Class GYNANDRIA cultivated here, except as matter of curiosity.

CLASS XIX. MONOECIA.

ORDER, TRIANDRIA.

74. ZEA. *Gen. Pl.* 1403.

[*Gr. zao*, to live; the seeds contributing eminently to the support of life.]

Male, in terminal *spikes*. *Cal.* glume 2 valved, 2 flowered, awnless. *Cor.* 2 valved, awnless.
FEM. in dense lateral *spikes*. *Cal.* 2 valved. *Cor.* 4 valved. *Style* 1, very long. *Seed* solitary. *Recept.* oblong

Z. MAYS. *Sm. Cyclop.* Stem erect; leaves lanceolate, concave, carinate, acute, entire.
Vulgo—Indian Corn.
Fl. Latter end of July. *Fr. mat.* Beginning of October.
Hab. Fields. Annual. 4 to 8 feet high. *Nat.* America, but the region unknown.

Obs The terminal, aggregated spikes of male flowers are denominated, in common parlance, the *Tassel* of the Corn. The female flowers are below, in a simple cylindrical spike, or spadix, emerging from the sheaths of the leaves (usually one or two, sometimes three, or more, female spikes on each plant). This spike is closely enveloped by a foliaceous involucre, of many leaves,—known by the name of the *Husk*; from the end of which protrudes the bundle of long, filiform styles, called the *Silk* The common receptacle of the seeds is called, by the farmers, the *Cob*.

Although the bread prepared from the Indian Corn alone, is not, in general, esteemed equal to that made from wheat—yet, considered in every point of view, this is perhaps one of the most important and valuable plants which we cultivate. It is highly nutritious, and contributes largely towards the sustenance of our people. It is particularly excellent for feeding every kind of Stock: and it has been well remarked, that if the Agriculturists of Europe could avail themselves of our Indian Corn, we should not hear so much from them on the importance of their *root crops*. When the grain is in the milky state,—which is from the middle to the last of August,—it affords a repast (under the appellation of *boiling*, or *roasting ears*,) of which the Epicures of the old world have no adequate conception. The plant is usually gathered about the middle of September, by cutting it off near the ground, and securing it in upright bundles, or *Shocks*. The ears are taken from the husks in the beginning of October; and the residue of the plant affords excellent fodder for cattle. The grain of this plant, as well as of *Rye*, is much used—or rather abused—in distilling that mischievous liquor, called *Whiskey*.

The seeds are planted in the beginning of May.—

I have often observed the male spike to contain some *hermaphrodite* flowers, and to produce tolerably perfect seeds: which circumstance may perhaps countenance an opinion expressed at the foot of *page* 43, of this catalogue.

75. COIX. *Gen. Pl.* 1405.

[An ancient Greek name; of obscure etymology.]

MALE, *spikes* remote: *Cal.* glume 2 valved, 2 flowered, awnless. *Cor.* 2 valved, awnless.
FEM. *Cal.* glume 2 flowered. *Cor.* glume awnless *Style* 2 parted. *Seed* 1, covered with the ossified calyx.

C. LACHRYMA. *Willd.* Culm semiterete above; flowers naked; fruit ovate.
Vulgo—Job's tear.
Fl. Middle of July. *Fr. mat.* Beginning of September.
Hab. Gardens. Annual? 12 to 18 inches high. *Nat.* East Indies.

Obs. Some persons cultivate this for the purpose of making *beads*, of the smooth, bony fruit, to put round the necks of children, to prevent chafing, or galling of the skin.

ORDER, POLYANDRIA.

76. JUGLANS. *Gen. Pl.* 1438.

[Formed from the Lat. *Jovis Glans*, the nut of Jove; on account of its excellence.]

MALE, *Ament* imbricate. *Cal.* a scale. *Cor.* 5 or 6 parted. *Stam.* about 18.
FEM. *Cal.* superior, 4 cleft. *Cor.* 4 parted. *Styles* 1 or 2. *Drupe* coriaceous, or spongy. *Nut* rugose.

J. REGIA. *Willd.* Leaflets about 9, oval, glabrous, subserrate, subequal; fruit globose.
Vulgo—English Walnut. Madeira Nut.
Fl. Middle of May. *Fr. mat.*
Hab. Yards, &c. 15 to 20 feet high. *Nat.* Persia.

Obs. This tree is occasionally cultivated for its fruit,—chiefly for the purpose of making pickles of it, in its green state,—but our winters are rather too severe for it; and it rarely succeeds in this vicinity.

ORDER, MONADELPHIA.

77. RICINUS. *Gen. Pl.* 1464.

[Lat. *Ricinus*, a tick, or bug; from the resemblance of the seeds.]

MALE, *Cal.* 5 parted; segments ovate, concave. *Cor.* 0. *Stamens* numerous.
FEM. *Cal.* 3 parted. *Cor.* 0. *Styles* 3, bifid *Caps.* echinate, 3 celled; cells 1 seeded.

R. COMMUNIS. *Willd.* Leaves peltate, palmate, lobes lanceolate; stem pruinose.
Vulgo—Castor-oil Bean. Palma Christi.
Fl Last of July, and after. *Fr. mat.* Last of August, and after.
Hab. Gardens, &c. Annual. 4 to 6 feet high. *Nat.* East Indies.

Obs. This plant,—though cultivated to a considerable extent, in New-Jersey, for the purpose of obtaining the oil from the seeds,—is chiefly regarded, here, as a mere curiosity. Whether it would be a profitable object of culture, in our soil and climate, I am unable to say; but I observe a large portion of the fruit is prevented from arriving at maturity by the autumnal frosts.

78. MOMORDICA. *Gen. Pl.* 1477.

[Supposed from the Lat. *mordeo*, to bite; the seeds appearing as if bitten, or chewed.]

MALE, *Cal.* 5 cleft. *Cor.* 5 parted. *Filaments* 3.
FEM. *Cal.* superior, 5 cleft. *Cor.* 5 parted. *Style* 3 cleft. *Pome* bursting elastically.

M. BALSAMINA. *Willd.* Leaves palmate-5 lobed, glabrous; fruit angled, tuberculate.
Vulgo—Balsam Apple.
Fl. Middle of July, and after. *Fr. mat.* Middle of September.
Hab. Gardens. Annual. 3 to 5 feet long; flowers yellow, fruit reddish orange. *Nat.* India.

Obs. Occasionally cultivated for the fruit; which is reputed balsamic, and vulnerary.

79. CUCURBITA. *Gen. Pl.* 1478.

[Etymology obscure: perhaps Lat. quasi *curvata*; the fruit being often curved.]

MALE, *Cal.* 5 toothed. *Cor.* 5 parted. *Filaments* 3.
FEM. *Cal.* superior, 5 toothed. *Cor.* 5 parted. *Style* 3 cleft. *Pome* 3 celled. *Seeds* tumid at margin.

C. LAGENARIA. *Willd.* Leaves cordate, round-obtuse, pubescent; pome clavate, woody.
Vulgo—Common Gourd. Calabash. Bottle Gourd.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Gardens, &c. Annual. 10 to 15 feet long: flowers white. *Nat.* Both Indies.

Obs. Cultivated for the woody shell of the fruit, which affords many conveniences. Willdenow says it serves for flagons, ladles, funnels, caps, and innumerable other utensils. Seeds planted in April.

C. OVIFERA. *Willd.* Leaves cordate, angular 5-lobed; pome obovate, striped lengthwise.
Vulgo—Bitter-bash. Egg Squash. Egg Gourd.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Gardens. Annual. 4 to 6 feet long: flowers yellow. *Nat.* Astracan.

Obs. Sometimes cultivated, and cups made of the fruit. Seeds planted early in May.

C. VERRUCOSA. *Willd.* Leaves cordate, deeply 5 lobed; pome elliptic, or clavate, verrucose.
Vulgo—Squash. Warted Squash. Long Squash.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Gardens, &c Annual. 10 to 15 feet long: flowers yellow. *Nat.*

Obs. Numerous *varieties* of this are cultivated for the table. When planted in the neighborhood of pumpkins, (C. *pepo*,) I have observed the crop of the latter to be much injured by the production of *hybrids*. Seeds planted early in May, as are those of all the following species.

C. MELOPEPO. *Willd.* Leaves cordate, obtuse, sub-5 angled; pome clypeate, margin tumid
Vulgo—Round Squash. Cymling.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Gardens, &c. Annual. 8 to 12 feet long: flowers yellow. *Nat.*

Obs. The fruit of this is considered superior to that of the preceding, for the table.

C. PEPO. *Willd.* Leaves cordate, obtuse, sub 5 lobed; pome roundish, or oblong, smooth.
Vulgo—Pumpkin.
Fl. Middle of July, and after. *Fr. mat.* Beginning of October.
Hab. Fields, &c. Annual. 10 to 20 feet long: flowers yellow. *Nat.* Asia.

Obs. The fruit of this is valuable for feeding stock; and is extensively cultivated. It also affords the celebrated *Pumpkin Pie*, of New England—which is not without admirers in Pensylvania. There are numerous *varieties* cultivated,—some of them enormously large, but not so much esteemed as the smaller ones.

C. CITRULLUS. *Willd.* Leaves 5 lobed, lobes sinuate-pinnatifid, obtuse; pome elliptic, smooth.
Vulgo—Water Melon.
Fl. Latter end of June, and after. *Fr. mat.* Middle of August, and after.
Hab. Gardens, &c. Annual. 8 to 15 feet long: flowers greenish yellow. *Nat.* Sicily, &c.

Obs This is frequently cultivated for its delicious fruit; but our principal supply comes from New Jersey,—where it is produced more abundantly, and in greater perfection. There is a *variety*, with small seeds, called the *Apple-seeded* Water Melon.

80. CUCUMIS. *Gen. Pl.* 1479.
[A name of obscure derivation. See *De Theis.*]

MALE. *Cal.* 5 toothed. *Cor.* 5 parted. *Filaments* 3.
FEM. *Cal.* superior, 5 toothed. *Cor.* 5 parted. *Style* 3 cleft. *Pome* 3 celled. *Seeds* acute.

C. ANGURIA. *Willd.* Leaves palmate-sinuate; pome globose, or elliptic, echinate.
Vulgo—Prickly Cucumber. Jerusalem Cucumber.
Fl. Middle of July, and after. *Fr. mat.* Latter end of September.
Hab. Gardens, &c. Annual. 3 to 5 feet long: flowers greenish yellow. *Nat.* Jamaica.

Obs. The green fruit is used for *pickles;* for which object the plant is sometimes cultivated.

C. MELO. *Willd.* Angles of the leaves rounded; pome torulose.
Vulgo—Musk Melon. Cantaleupe, or Cantalope.
Fl. Latter end of June. *Fr. mat.* Latter end of August.
Hab. Gardens, &c. Annual. 5 to 10 feet long: flowers yellow *Nat.* Tartary?

Obs. The fruit of this is much esteemed,—for which it is occasionally cultivated; but, like the water melon, our chief supply is brought from New Jersey. There are several *varieties*,—passing under the names of *Nutmeg* Melons, *Cantaleupes*, *Musk* Melons, &c.

C. SATIVUS. *Willd.* Leaves right-angled; pome oblong, scabrous.
Vulgo—Cucumber. Common Cucumber. *Cowcumber.*
Fl. Latter end of June, and after. *Fr. mat.* Last of August, and after.
Hab. Gardens, &c. Annual. 6 to 12 feet long: flowers yellow. *Nat.* India, Tartary, &c.

Obs. Cultivated by every body: the fruit, while young, is used for pickles,—and when nearly full grown, is cut into thin transverse slices, with seasoning which renders it a favorite dish,—though not a very salutary one to indulge in. Culture has produced several *varieties* of this, as well as of most other plants that have been long under the care of man. The seeds of all the species are planted early in May.

CLASS XX. DIOECIA.

ORDER, DIANDRIA.

81. SALIX. *Gen. Pl.* 1493.
[Supposed from the Lat. *salio*, to leap, or spring up; alluding to its quick growth.]

MALE *Ament* cylindric. *Cal.* a scale. *Cor.* 0. *Stam.* 1 to 6, with nectariferous glands at base.
FEM. *Ament* cylindric. *Cal.* a scale. *Cor.* 0. *Style* bifid. *Caps.* 1 celled, 2 valved. *Seeds* woolly.

Leaves serrate: Aments coetaneous.

S. VITELLINA. *Willd.* Leaves lanceolate, acute, glabrous, silky white beneath, serratures cartilaginous.
Vulgo—Yellow Willow. Golden Osier.
Fl. Middle of April. *Fr. mat.* Latter end of June.
Hab. About houses, &c. 20, to 30 or 40 feet high: branches yellow. *Nat.* Europe.

Obs. Formerly much planted in front of houses, for shade: not so commonly at present. It has become pretty much naturalized.

S. BABYLONICA. *Willd.* Leaves linear-lanceolate, acuminate; germs ovate, sessile, glabrous.
Vulgo—Weeping Willow. Drooping Willow.
Fl. Beginning of April. *Fr. mat.*
Hab. About houses, &c. 30 to 50 feet high: branches slender, pendant. *Nat.* of the East.

Obs. This handsome tree is frequently planted before houses for the sake of its comfortable shade. It is believed there are none but *females*, of this species, in our country.

ORDER, TRIANDRIA.

82. FICUS. *Gen. Pl.* 1613.
[An ancient name; of obscure origin.]

Receptacle turbinate, carnose, enclosing the florets: MALE, *Cal.* 3 parted. *Cor.* 0. *Stam.* 3.
FEM. *Cal.* 5 parted. *Cor.* 0. *Style* 1. *Seed* 1, covered with the persistent, and sub-carnose calyx.

F. CARICA. *Willd.* Leaves cordate, 3 or 5 lobed, scabrous above, pubescent beneath.
Vulgo—Fig tree.
Fl. Latter end of July. *Fr. mat.*
Hab Gardens. 5 to 8 feet high. *Nat.* Southern Europe, and Asia.

Obs. Attempts have been made to cultivate this remarkable plant, here; but it is too delicate to endure our winters. I have known no instance where the fruit has been perfected, out of a stove room.

ORDER, TETRANDRIA.

83. BROUSSONETIA. *Willd.* 1777.
[In honor of *P. N. V. Broussonet;* a French Naturalist.]

MALE, *Ament* cylindric. *Cal.* 4 parted. *Cor.* 0.
FEM. *Ament* globose, compound. *Cal.* 3 or 4 toothed. *Style* lateral. *Seed* 1, covered with the calyx.

B. PAPYRIFERA. *Willd.* Leaves subcordate, lobed, or undivided.
Synon. Morus papyrifera. *Hort. Kew.* *Vulgo*—Paper Mulberry. Italian Mulberry.
Fl. Middle of May. *Fr. mat.*
Hab. About houses, &c. 15 to 30 feet high *Nat.* Japan, and South Sea Islands.

Obs. This tree is a good deal cultivated in this vicinity, for the sake of shade; but it is rather troublesome on account of the numerous *suckers* which spring from its roots. We have only the *Male* here.

ORDER, PENTANDRIA.

84. SPINACIA. *Gen. Pl.* 1520.
[Lat. *Spina,* a thorn; from the prickly, or spinose integument of the fruit.]

MALE, *Cal.* 5 parted; segments oblong, obtuse, concave. *Cor.* 0.
FEM. *Cal.* 4 cleft. *Cor.* 0. *Styles* 4. *Seed* 1, within the indurated calyx.

S. OLERACEA. *Sm. Cyclop.* Stem branched, hollow; leaves hastate-sagittate; fruit sessile.
Vulgo—Spinach. Garden Spinach. *Spinage.*
Fl. Middle of June, and after. *Fr. mat.* Middle of August, and after.
Hab. Gardens. Annual. 1 to 2 feet high. *Native* country unknown.

Obs. Occasionally cultivated, for culinary purposes; but not common.

85. CANNABIS. *Gen. Pl.* 1522.
[An ancient Greek name; etymology obscure. See *De Theis.*]

MALE, *Cal.* 5 parted; segments oblong, acuminately obtuse, concave. *Cor.* 0.
FEM. *Cal.* 1 leaved, entire, gaping laterally. *Cor.* 0. *Styles* 2. *Nut* 2 valved, in the closed calyx.

C. SATIVA. *Cyclop.* Leaves petiolate, digitate; leaflets 5 or 7, lanceolate, serrate.
Vulgo—Common Hemp. Neck-weed.
Fl. Latter end of June. *Fr. mat.* Latter end of August.
Hab. Fields, &c. Annual. 5 to 10 feet high. *Nat.* Persia, and North America?

Obs This plant, beside being an auxiliary of some consequence in the penal systems of vindictive law-givers, is one of immense importance in the concerns of all commercial and civilized nations. In addition to many articles of clothing, the canvass and cordage of their shipping are chiefly derived from this plant. We are moreover indebted to it, in a great degree, for the vehicle by which useful knowledge is diffused throughout the world,—by which the elegant productions of genius are preserved, and the fruits of scientific research transmitted, with accumulating benefit, from generation to generation. This important plant, however, is but rarely cultivated in this vicinity. It requires a strong soil; and has not been found, by our farmers, to be the most profitable crop. In some portions of the adjoining county of Lancaster, it is raised to a considerable extent. The seed is sown the latter end of March.

86. HUMULUS. *Gen. Pl.* 1523.

[Perhaps from the Lat. *Humus*, moist earth; in reference to its place of growth.]

MALE, *Cal.* 5 leaved; leaflets oblong, obtuse, concave. *Cor.* 0.
FEM. in *Cones*: *Cal.* 1 leaved, entire, obliquely spreading. *Cor.* 0. *Styles* 2. *Seed* 1, within the calyx.

H. LUPULUS. *Cyclop.* Stem voluble, twining with the sun; leaves lobed, scabrous.
Vulgo—Hop. Common Hop.
Fl. Middle of July. *Fr. mat.* Latter end of September.
Hab. Gardens, &c. Perennial. 12 to 20 feet high. *Nat.* Europe and America.

Obs. This plant is unquestionably a native of this vicinity,—as I have frequently found it, both male and female, in the thickets along the Brandywine It is cultivated on a small scale, in almost every garden, for family use, in brewing beer, &c. but in no instance, that I know of, with a view to commerce. In addition to its importance in the Breweries, it possesses valuable medicinal properties The tincture is anodyne and soporific,—the infusion tonic,—and the cones, prepared in cataplasms, are highly antiseptic. It is the *Female* plant only that is cultivated.

It is curious to observe the determined natural bias which this plant has to twine *with the Sun*: whereas the climbing species of Bean, (*Phaseolus*,) as constantly twine in the opposite direction.

ORDER, OCTANDRIA.

87. POPULUS. *Gen. Pl.* 1531.

[Lat. *Populus*, the people—*Tree of the People*; the public walks, in Rome, being shaded by it. *De Theis.*]

MALE, *Ament* cylindric. *Cal.* a lacerate scale. *Cor.* turbinate, oblique, entire.
FEM. Flower as in the male. *Stigma* 4 or 6 lobed. *Caps.* 2 celled. *Seeds* beset with long wool.

P. GRÆCA. *Willd.* Leaves cordate-ovate, acuminate, obsoletely serrate, petioles compressed.
Vulgo—Athenian Poplar.
Fl. Beginning of April. *Fr. mat.*
Hab. About houses, &c. 20 to 40 feet high; branches spreading. *Nat.* Islands of the Archipelago.

Obs. Introduced into this neighborhood about fifteen years ago, for the sake of its shade. We have only the *Female* here: and the *wool*, or white down, which is shed from the capsules, when they burst, is so abundant as to render the tree rather objectionable, in the immediate vicinity of houses.

P. DILATATA. *Willd.* Leaves deltoid, acuminate, serrate, glabrous on both sides.
Vulgo—Lombardy Poplar. Italian Poplar.
Fl. Beginning of April. *Fr. mat.*
Hab. About houses, &c. 40 to 80 feet high: branches very erect. *Nat.* Italy.

Obs. This poplar is also planted in front of houses, for the purpose of shade. It is understood to have been imported into this country, about 40 years ago, by the late Wm. Hamilton, Esqr. of Philadelphia; and it is about 25, or 30 years, since it began to be common in this vicinity. It is not, however, so much admired at present, as it has been; and is beginning to give place to other trees. The Lombardy poplars in this country are all *Males*; and consequently, having been propagated by cuttings, may all be considered as the mere elongation of a single tree. The Botanical Editor of Rees's Cyclopædia thinks they have only the *Female*, in England—which, he says, was introduced there about half a century before the publication of that work.

ORDER, MONADELPHIA.

88. JUNIPERUS. *Gen. Pl.* 1552.

[Etymology obscure. See page 111 of this catalogue.]

MALE, *Ament* ovate. *Cal.* a scale. *Cor.* 0. *Stamens* 3.
FEM. *Cal.* 3 parted, adnate to the germ. *Cor.* petals 3? *Styles* 3. *Berry* tuberculate, 1 to 3 seeded.

J. COMMUNIS. *Willd.* Leaves ternate, spreading, mucronate, longer than the berry.
Vulgo—Juniper. Juniper-bush.
Fl. Latter end of April. *Fr. mat.*
Hab. Gardens, &c. 4 to 8 feet high. *Nat.* Northern Europe.

Obs. This shrub has become almost naturalized in many places along the Brandywine. It is cultivated in some gardens for the *berries*,—which possess pretty valuable medicinal properties—especially the *oil* which they afford. Spirits, when impregnated with this oil, are known by the name of *Gin, Geneva*, or *Juniper water*.

☞ The J. SABINA, or *Savin*, is occasionally cultivated for its medicinal virtues, in some parts of the Country; but I have not observed it in this immediate vicinity.

CORRECTIONS AND ADDITIONS.

☞ I was not so fortunate as to possess the excellent *Flora* of Doctor Torrey, until after that portion of the Catalogue, which is comprised in his first Volume, was printed,—otherwise I might have improved my list of *Synonyms*, and profited very materially by the light which the Doctor has thrown upon the Botany of this region. I shall not, however, swell these notes by an attempt at a general revision, here: but will content myself with a few remarks and corrections. Those errors which are merely typographical, and do not affect the sense, will be left to the correction of the reader.

COLLINSONIA CANADENSIS, *page* 5. The flowers of this plant possess the odor of *Hops*, in a remarkable degree.

HETERANTHERA. *p.* 6. The name given to this plant, by *Beauvois*, in the Transactions of the American Philosophical Society, is HETERANDRA, and not *Heteranthera*. The names, however, are strictly synonymous. I had not the Transactions at hand, when this part of the Catalogue went to press. In the generic description of the plant, for "*Anthers*, 2 linear, 1 triangular"—read *Anthers* 2 roundish, 1 oblong.

MARISCUS GLOMERATUS? *p.* 9. I am now perfectly satisfied that this plant is the *Cyperus Mariscoides*, of Elliott and Torrey.

POA NERVATA. *p.* 12. I observed last season (1825) that this grass is *very abundant* in all our low, swampy grounds.

PANICUM CILIATUM, and P. PAUCIFLORUM? *p.* 16. I am now pretty well satisfied that these are nothing more than *varieties* of Doctor Torrey's P. *nitidum*.

For P. MILIACEUM. *p.* 16, last line,—read P. GERMANICUM: or rather SETARIA GERMANICA. *Setaria* is the generic name adopted by Dr. Torrey, from Beauvois, for this section of the Panicums; which I consider preferable to *Pennisetum*. The name *Setaria*, however, appears to have been also appropriated to a genus in Cryptogamia.

GALIUM CIRCÆZANS. p. 19. The *sweet taste* of this species, I observe, is noticed by Mr. *Eaton*, in his excellent Manual of Botany; a work which I did not possess until after a considerable portion of this Catalogue was printed.

☞ In June 1825, I found the GALIUM BOREALE in this county, on the banks of the Schuylkill, at a place called Black Rock, near the Phœnix Iron works. It was in considerable quantities there; and exactly resembles a specimen, in my possession, from the North of Europe.

CORNUS. *p* 20. In noticing the fruit of the different species, the word "berries" is inadvertently used instead of *drupes*. The mature drupes of C. *florida* are red.

PANAX QUINQUEFOLIUM. *p.* 34. The word "obovai" occurs in the description of this plant,—and also in a few other instances,—for which read *obovate*. Oboval is an incorrect term; although sanctioned by some respectable authorities.

The following plant was found since the catalogue went to press, and belongs to *page* 35:—

MYRRHIS PROCUMBENS. *Tor.* Leaves decompound, pinnatifid, sheaths hairy; umbels few flowered. *Synon.* Chærophyllum procumbens. *Ph. Ell. Nutt.* Scandix procumbens. *Willd. Muhl.* *Vulgo*—Chervil. *Fl.* Latter end of April. *Fr. mat.*

Hab. Moist, shaded grounds: Brandywine: frequent. 3 to 9 in hes high: flowers white, minute.

Obs. This plant is described as *procumbent*; but the stems were upright, in the greater number which I have seen. It grows in abundance on the bank of the Brandywine, just below the East end of Wistar's Bridge; but it had escaped my notice until the present season.

SAROTHRA HYPERICOIDES. *p.* 38. The term "*accrose*" is strictly applied to *evergreen* linear, needle shaped leaves, such as the Juniper, &c. and therefore incorrectly used in the description of this plant.

ARALIA RACEMOSA. *p.* 38. For "umbellate," read umbellulate.

CAULOPHYLLUM. *p.* 39. After that portion of the catalogue was struck off, I found considerable quantities of the plant in a small spot in the woods, on the west side of Brandywine, opposite the upper end of John Taylor's Islands. For a corrected account of the *fruit* of this plant, See *Torrey's Flora, Vol.* 1. *pages* 835--6.

HEXANDRIA. TETRAGYNIA. *p.* 44—45.

SAURURUS. *Nutt. Gen.* 354.

[Gr. *Saura*, a lizard, and *Oura*, a tail; in reference to its spike of flowers.]

Flowers in an Ament, or Spike. *Scales* 1 flowered. Cor. 0. Caps. 4, 1 or 2 seeded, not opening.

S. CERNUUS. *Tor.* Stem angular, sulcate; leaves alternate, oblong-cordate, acuminate.
Vulgo—Lizard's Tail. Breast-weed. Swamp Lily. Water Lilies.
Fl. Beginning of August. *Fr. mat.* Latter end of September.
Hab. Wet places: Forks of Brandywine: rare. 1 to 2 feet high.

Obs. This plant I never met with, hereabouts, until after that portion of the catalogue to which it belongs was struck off. It grows luxuriantly, in a small patch, on the south side of the west branch of Brandywine, a few rods above the fork. I found it was known to the neighbors by the name of *Breast-weed*—they being in the practice of collecting its porous roots, and applying them, bruised, in form of cataplasm, to inflamed breasts. Mr. Elliott notices a similar practice. The leaves have much resemblance to those of Aristolochia serpentaria,—except that they are larger, and somewhat more cordate.

Arenaria lateriflora? *p.* 54. I have recently received, from Dr. Torrey, specimens of Arenaria lateriflora, which satisfy me that my friend Mr. Schweinitz was rather hasty in pronouncing upon my plant: I am pretty well convinced it is nothing more than the *Stellaria lanceolata*, of Torrey. It is remarkable, however, that the slender pedicels are frequently *bibracteate*, after the manner of Arenaria lateriflora.

Verbena urticæfolia. *p.* 66. By a typographical error, this species is stated to be "*not* common." It is very common.

Carex xanthophysa. *p.* 98. It is stated in the observation annexed to this species, that the C. xanthophy a, of Muhlenberg, is a distinct plant—being the C. *striata*, of Mr. Schweinitz. In a letter lately receiv from Mr. S. he informs me, that on further examination he has been induced to drop his C. striata; believing it, and of course Dr. Muhlenberg's, to be identical with our plant.

Phaseolus lunatus. *p.* 131. Next to the common names, insert

Fl. Middle of July, and after. *Fr. mat.* Middle of September.

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GENERA AND SPECIES.

☞ *Synonyms* are printed in *Italic.* ☜

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